DOCUMENT RESUME

ED 169 213 CE 018 058

AUTHOR	Bishop, Edward W.
TITLE	Police Management Training. Factors Influencing DWI [Driving While Intoxicated] Arrest: Participant Manual.
INSTITUTION	Dunlap and Associates, Inc., Darien, Conn.
SPONS AGENCY	Department of Transportation, Washington, D.C. National Highway Safety Bureau.
PUB DATE	Oct 76
NOTE	133p.; For related documents see ED 118 879 and CE 020 242-243
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock Number 050-003-00260-7)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Alcohol Education; Case Studies; Chemistry; Decision Making; *Management Education; *Police; Police Action; Reports; Research; Supervisors; *Traffic Regulations; *Traffic Safety; Training Objectives; *Workshops

ABSTRACT

The problems of alcohol as it affects highway safety is the subject of this manual, which was prepared for a three-day training workshop. The manual is addressed to police command and supervisory personnel and is concerned with increasing the rate of alcohol-related enforcement by making these personnel aware of the many factors that influence a patrolman's arrest decision and by helping them to identify appropriate management actions based on those factors. The foreword and section 1 contain background information which explains how the workshop was developed. Section 2 and appendix A summarize the research studies and results that are the foundation of the training. Section 3 explains the workshop objectives, gives a schedule of the several units that make up the workshop, and tells what is expected of the workshop participant. Other appendexes contain case-study material, special considerations of the controlled drinking demonstration, and a brief description of the chemistry and physiological effects of alcohol. The bibliography lists several sources of information about alcohol and highway safety. (CT)

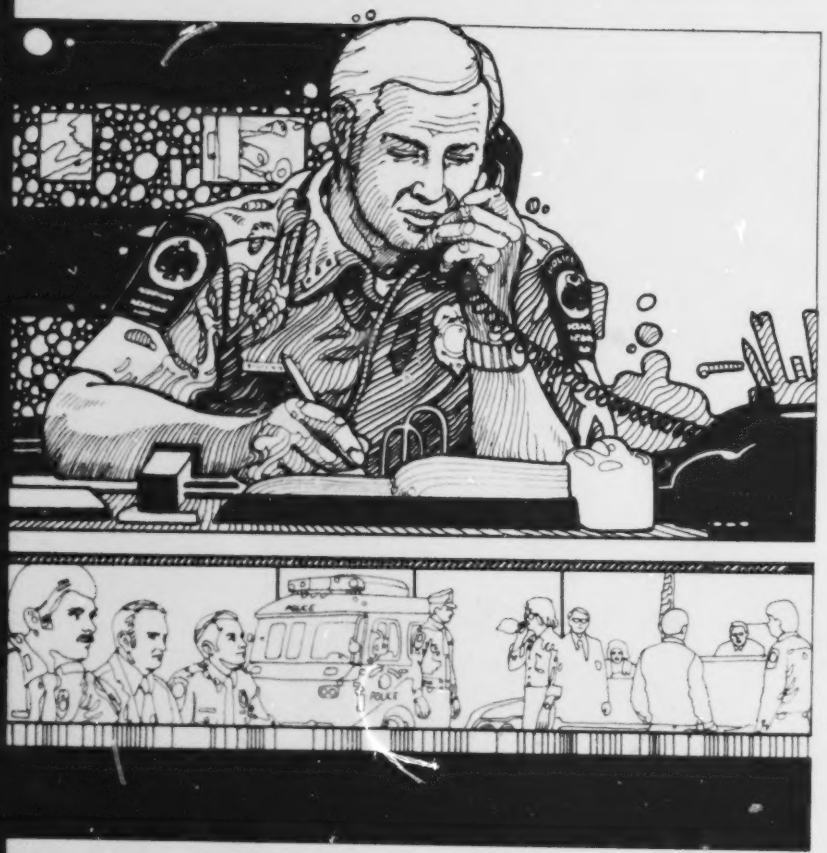
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED169213

POLICE MANAGEMENT TRAINING

FACTORS INFLUENCING DWI ARRESTS

Participant Manual



U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Department of Transportation
National Highway Traffic Safety Administration
October 1976

CE 01 8053

Author's Note

While the original and official title of this project is as shown on the title page and cover, the phrase "driving while intoxicated" (or DWI) is replaced in much of the text with the phrase "alcohol-related offense" (or violation or arrest). Also, in place of "management" we have frequently used "command and supervisory personnel." The former change has been made to indicate that the scope encompasses all alcohol-related traffic violations even though other designations than DWI may be used. The second change is thought to be more explicitly descriptive of the audience to whom this training is directed.

FOREWORD

This manual has been prepared for use in a three day training workshop entitled: Police Management Training: Factors Influencing DWI Arrests.

The workshop was developed under the sponsorship of the National Highway Safety Administration of the U.S. Department of Transportation. As part of its total effort to increase highway traffic safety, NHTSA supports a continuing program of research and development to provide effective, uniform training for state and local agencies involved in any aspect of highway safety. The content of this workshop is directed at the problems of alcohol as it affects highway safety. The training it provides is one more countermeasure in the comprehensive program that has been mounted by NHTSA to help state and local agencies develop their own approaches to the control of the drinking-driver problem.

As indicated in its title, the workshop is addressed to police command and supervisory personnel. It is concerned with increasing the rate of alcohol-related enforcement by making these personnel aware of the many factors that influence a patrolman's arrest decision and by helping them to identify appropriate management actions based on those factors.

This document is a manual for workshop participants and combines some elements of a textbook and a study guide. The complete training package--or documentation--for the workshop includes two other documents: Planning Guide and Workshop Leader Outline.

The Planning Guide is concerned with the administration of the session and provides directors-of-training with information about: content, instructor qualifications, facilities, schedule, etc. The guide helps the director evaluate the workshop relative to his own training needs and capability.

The Workshop Leader Outline is a manual for the leader or instructor who will conduct the workshop. It contains directions for the conduct of each of the several units into which the session is divided, as well as necessary background information.

TABLE OF CONTENTS

		Page
FOREWORD		iii
HOW TO USE THIS MANUAL		viii
I. BACKGROUND		1
A. The Training Workshop		1
B. Alcohol-related Enforcement		1
II. SUMMARY OF RESEARCH ON FACTORS INFLUENCING THE ALCOHOL-RELATED ARREST DECISION		5
III. WORKSHOP OBJECTIVES, SCHEDULE AND PROCEDURES		11
BIBLIOGRAPHY		21
APPENDIX A.	Excerpts from Research Studies of Factors Influencing Alcohol-related Arrests	(Appendices start following page 22)
APPENDIX B.	Scenarios for Exercise (Unit 2) and Case Study Narrative (Units 12, 14, 18 and 20)	
APPENDIX C.	Controlled Drinking Demonstration	
APPENDIX D.	Chemistry and Physiology of Alcohol	

ACKNOWLEDGMENTS

This training material was developed for the National Highway Traffic Safety Administration by Dunlap and Associates, Inc., of Darien, Connecticut. Mr. Edward W. Bishop of the Dunlap staff was the author. However, there are many persons who contributed directly or who gave guidance that helped shape the format and content of this training package; their assistance and support is gratefully acknowledged.

- Mr. Cecil B. Arnold was the NHTSA Contract Technical Manager for this package and provided able direction and advice from the conceptual stage through the final production. His help in evaluating the trial presentations of this training was especially valuable.

- Mr. Richard R. Frederick, of NHTSA, was the Technical Specialist for this package and provided a unique contribution. His police experience both as an officer and an instructor helped greatly to make this a practical and workable training package. His special concern for the DWI problem helped to make clear the specific objectives to be addressed.

- Mr. John F. Oates, Jr., of the Dunlap staff and Mr. Floyd H. Holmes of Arthur Young & Co., Washington, D. C., were consultants to this program. These men were the principal investigators in the two survey studies on which this training is based. Their thorough knowledge of those studies facilitated the translation to a training package. They also provided capable support in the trial presentations.

- This training package was put through three trial presentations during its development, and the people who helped arrange and conduct these presentations gave invaluable support in their critical reviews and practical advice. These people are listed below:

Connecticut Municipal Police Training Council

Richard M. Hannon, Executive Director
Frederic C. Morton, Instructor

New Hampshire Police Standards and Training Council

Arthur D. Kehas, Director
Earl M. Sweeney, Field Representative
Clarence Jeffery, Instructor (N.H. Program on Drug and Alcohol Abuse)

Northwestern University, Traffic Institute

Russell J. Arend, Director of Training
Richard E. Stephens, Instructor
Stephen S. Caruso, Instructor

Finally, the assistance of the Dunlap staff in the preparation of this package must be acknowledged. In particular, the craftsmanship and careful attention to detail brought to this program by Miss Frances Kowaleski have helped produce an accurate, highly usable training package.

HOW TO USE THIS MANUAL

You will have received this manual prior to arriving at the workshop or on your first day in attendance. The manual contains background information in the Foreword and Section I which will help you understand how this workshop was developed and, in very broad terms, what it is all about. You should read the Foreword and Section I first.

Next, you should read Section II and Appendix A which, together, summarize the research studies and results that are the foundation of this training. If you do not have the manual beforehand, read these sections as soon as you have time during the workshop schedule.

Section III tells you what the objectives of the workshop are; it gives you the schedule of the several units that make up the workshop; finally, it tells you what is expected of you as a participant. This material should be read as early as possible. You will probably find, however, that the leader of your workshop will modify or add to this material to adapt to local conditions.

Appendix B consists of the case study material you will use in Units 2, 12, 14, 18 and 20.

Appendix C reviews some of the special considerations of the Controlled Drinking Demonstration and should be read before the demonstration.

Appendix D is a brief description of the chemistry and physiology of alcohol. If there is time, read this before the workshop. The leader will refer to this appendix in the discussion units that are scheduled for the first evening.

As you read this manual and use it in the workshop, you should add your own notes and comments. The manual is yours to keep, and it will serve as a reference after the workshop is over. If you have added your own notes, you will find its reference value is greatly increased.

There is a bibliography in this manual (page 21) that lists several sources of information about alcohol and highway safety and some training material. This will be a useful reference list if you wish to initiate (or improve) an alcohol enforcement program.

I. BACKGROUND

A. The Training Workshop

The word "training" usually evokes an image of the traditional classroom-instructor-student model. Although there are many variations of this model, it is probably true that most training is delivered in a classroomlike setting in which the instructor is the most active person and the students are more or less passive recipients of training. The approach that has been taken in the design of this "training workshop" is quite different.

The emphasis here is on the prefix "work-". The persons who attend this session are expected to be actively involved in the training process, especially through discussion and problem-solving periods. Hence, the title of this document is Participant--not student--Manual. Even so, parts of the workshop will appear to be more traditional than others. The presentations of the research into factors influencing arrest decisions, for example, will be a lecture, in part. Overall, however, the workshop has been designed to help the participant reach his own understanding of the factors and to help him identify the things he can do to increase his own department's enforcement relative to the factors.

There is no final examination for this training because there are no absolute conclusions or correct answers. The participant will develop his own approach to increased alcohol-related enforcement. That approach will reflect the influencing factors but will be his unique response for coping with the factors in his own working situation. Such workable approaches to enforcement are the goal of the training workshop.

B. Alcohol-related Enforcement

The statistics of death, injury and property loss attributable to the drinking driver define an enormous and tragic problem. Even after several years of dedicated and intensive countermeasure effort by national as well as state and local agencies, the rate of alcohol-related traffic offenses remains high. The programs developed to combat the drinking-driver problem, such as the federally funded Alcohol Safety Action Projects (ASAP) have included such countermeasures as:

- Improved legislation to better define the problem as well as the role of enforcement and adjudication.

- Public education.

- Treatment and rehabilitation of problem drinkers.

- Stringent penalties upon conviction.

Virtually all programs have included a common element which is enforcement. Enforcement is the major police role in the countermeasure effort. It is the police who must detect, apprehend, investigate, and arrest the drinking driver if the law is to be enforced and the consequent adjudication and treatment or punishment can take place. Attempts to increase the level of enforcement have been made, both because of the deterrent effect this is hoped to produce and because of the desire to identify a greater percentage of drinking drivers for treatment and rehabilitation. In many cases, substantial increases in enforcement have been realized. For example, in New Hampshire, state and municipal police forces made a total of roughly 7700 arrests for alcohol-related traffic offenses in 1973, as compared to about 2800 such arrests during 1971, the year preceding implementation of the state's ASAP. In Nassau County, New York, annual A/R arrests increased by roughly 150% during its ASAP's period of operation.

Despite such marked increases, the national level of enforcement is relatively low. One study, for example, has shown that the typical police officer responsible for traffic law enforcement makes about two alcohol-related arrests per year. Moreover, it is clear that this level of enforcement has not dissuaded commission of violations. Roadside surveys conducted prior to ASAP implementation, for example, showed that nearly one out of twenty drivers on the road on weekend nights exhibits a blood alcohol concentration at or above the statutory limit.

To help understand why enforcement remains low, NHTSA sponsored two studies of the factors that influence a police officer's discretion in the enforcement of driving-while-intoxicated (DWI) laws. In the chain of events, from detecting a DWI suspect until the suspect is arrested, cited, or released, there are decision points at which the investigating officer can elect to proceed with a DWI arrest, or to arrest or cite the suspect on a lesser charge, or to release the suspect. The two studies sampled a wide range of police organizations and, using survey as well as interview techniques, identified several factors that influence the police officer's decision (either positively or negatively) to make an arrest. One of these studies was confined to jurisdictions in which Alcohol Safety Action Projects (ASAP) had been established, and the second study was concerned with non-ASAP areas.

These studies identified several influencing factors and the results are in good agreement even though the studies were conducted by different research teams on different police groups. It appears evident that the

factors affecting the patrolman are consistent. The studies went on to recommend a series of actions that command and supervisory personnel should take to enhance alcohol-related enforcement. These recommendations are the essential content of this workshop.

A summary of these studies is contained in the next section.

II. SUMMARY OF RESEARCH ON FACTORS INFLUENCING THE ALCOHOL-RELATED ARREST DECISION

In this section of the manual, the results of the two studies are briefly summarized. This short summary is intended to give the participant sufficient orientation to take an active part in the discussion of the studies and their results. Appendix A consists of a fuller summary of each study. It is expected that this will be used by the participant when questions arise in reading or discussion or in developing the case study solutions for Units 12, 14, 18 and 20 (see Schedule, page 11). Appendix A also gives the sources of the technical reports for the participant who may wish to read the full accounts.

NHTSA in 1973-74 sponsored two studies that were conducted by two independent research organizations. The techniques were similar. Patrolmen and their supervisors were interviewed--usually while on patrol. Attitude survey forms and questionnaires were also used. Other officials--prosecutors, judges, mayors, etc.--were also interviewed. One study was confined to a sample of police departments taking part in an ASAP, while the other covered only non-ASAP departments.

In spite of the differences between the studies, the results very strongly showed that essentially the same factors are at work in all departments. The factors that were identified in each study are shown in Table I. The similarities between the two results are obvious. Some of these factors exert a negative influence--older, more experienced officers tend to make fewer DWI arrests. Some are positive--an officer who drinks only sparingly tends to make more DWI arrests. There are also interactions among many of the factors. How these factors work to shape the patrolman's decision will be presented and discussed in the workshop. (Appendix A also describes how these factors operate.)

Based on an analysis of these factors, several recommendations for actions to enhance alcohol-related enforcement were developed in each study. The actions are ones which must be taken by command or supervisory personnel to reinforce those attitudes and factors that will enhance enforcement and to counteract those attitudes and factors that tend to reduce enforcement. These action recommendations are the substance of this workshop.

The recommendations are presented in full in Appendix A; a summary is given below. This summary is divided into four parts that correspond to the major areas of command and supervisory responsibility for which recommendations were made. The areas are Policy, Operations (or Enforcement), Training and Communication. Each recommendation has

Table I(a).

Factors Influencing the Alcohol-Related Arrest Decision,
Non-ASAP Areas
(table adapted from the study report)

A. Factors Relating to the Officer's Background

- The officer's age and experience.
- His personal use of alcohol.
- His awareness of the relationship between alcohol and intoxication.
- The extent of training he has received for A/R enforcement.
- His duty assignment, in particular his assignment relative to traffic law enforcement.
- His educational status.

B. Factors Relating to the Officer's General Attitude toward A/R Violations

- The officer's perception of the A/R problem.
- His attitude toward A/R offenders.
- His perception of the suitability of A/R penalties.
- His attitude toward alternatives to A/R arrest.

C. Factors Specific to a Given Incident

- The time of day, and time remaining in the duty tour.
- The suspect's degree of intoxication.
- The weather conditions.
- The suspect's attitude.
- The suspect's age, sex, and race.
- Accident involvement in the incident.
- Involvement of other traffic violations in the incident.
- The suspect's position in the community.

D. Factors Relating to the Local Environment

- Court disposition of A/R cases.
- Departmental policy concerning A/R enforcement.
- The magnitude of other law enforcement problems encountered.
- A/R arrest processing procedures.

Table I(b).

Factors Influencing the Alcohol-Related Arrest Decision, ASAP Areas
(table adapted from the study report)

A. Personal Factors
- Officer's age and experience
- Officer's drinking habits (18%)
- Attitude toward drunk drivers (60%)
- Attitude toward punishment of DWI violators (27%)
- Attitude toward deterrent value of enforcement (61%)
- Extent and nature of DWI training
- Attitude toward specialized DWI enforcement (59%)
- Experience in traffic accident investigation (75%)
- Officer's self-confidence

B. Driver-Related Factors
- Attitude of the driver (55%)
- Political or social status of the driver (27%)
- The suspect's age
- The suspect's sex (19%)
- The nature of the suspect's drinking problem (34%)
- Presence of a sober licensed driver in the car (45%)
- The nearness of the driver's residence (38%)
- The suspect's "story" or rationale for intoxication

C. Operational Factors
- The nature of the suspect's driving (78%)
- The degree of intoxication (65%)
- The time required to process DWI arrests (26%)
- The nature of DWI processing procedures (32%)
- The fact the officer has made a prior DWI arrest during the duty shift (17%)
- The time remaining in the officer's duty shift (33%)
- The frequency of court appearances (21%)
- The effect of unusual working hours
- The use of one- or two-man patrol cars
- The area to which the officer is assigned
- The patrol techniques used by the officer
- The voluntary nature of assignment to specialized patrol
- Competition between officers
- The relationship of the officer to special program administrators
- The nature of available equipment and facilities
- The nature of community social conditions

D. Departmental Factors
- The level of officer morale (55%)
- The attitude of other officers (18%)
- The existence of performance standards
- The policy of the officer's supervisor
- The policy of the department
- The nature of the police agency
- The quality of the officer's supervisor
- The feeling of isolation from the remainder of the department

E. Outside Influences
- Court support for DWI enforcement (37%)
- The officer's faith in court justice (21%)
- The support of the local prosecutor (30%)
- Community attitudes and support (29%)
- The legality of specialized programs
- The weather conditions

been identified with the command and supervisory area in which it has the greatest impact. Obviously, any action relates in some measure to all four areas. For example, any training effort must be supported by a policy commitment and any management action must be communicated to the whole department. Thus, the following summaries of recommended actions are grouped as they are to show emphasis rather than absolute categorization:

- Policy

  To the patrolman there is a poor enunciation of the department's position concerning alcohol-related enforcement. The ASAP programs each have specific, defined objectives. However, even in departments having an ASAP program, a lack of an alcohol-related policy was noted. Essentially, the need is for a policy that is formalized and unambiguously stated. In particular, two deficiencies were cited: the lack of a priority for alcohol-related enforcement, and the lack of specific parameters of enforcement performance. The officers generally expressed a desire for a forthright statement of policy, eliminating the need as well as the opportunity for interpretation by supervisory personnel.

- Operations

  Within the operation of alcohol-related enforcement programs, there are several factors that influence, to a greater or lesser degree, the patrolman's decision to make an alcohol-related arrest. Some of the factors identified in the policy area relate quite directly to this "operations" area as well. For example, the officer's concern for performance standards and need for clear communication from management and supervisory personnel directly affect actions that can be taken in alcohol-related enforcement. In this area there is concern about time-consuming processing procedures and courtroom appearances. In addition, the latter are often viewed as exercises in futility because of the possibility for reduced charges and sentencing for the alcohol-related violation; also, court procedures frequently are such as to require several appearances because of delays and continuances. Specialized assignments to alcohol-related enforcement appear to be a positive factor and duty-hours, whatever the assignment, can be arranged to help maximize enforcement. Overall, the actions to be taken in this are are ones that will feflect the department's priority for alcohol-related enforcement and communicate to the patrolman the importance of effective enforcement.

Training

The results of the studies indicate a widespread need for training in alcohol-related enforcement as well as in the basics of alcohol, intoxication and the nature and scope of the alcohol-related offense problem. The need for training in varying degrees extends throughout the whole police structure. There was identified a need for training at the command and supervisory levels, as well as at the patrolman level. There is a need for training patrolmen in overall knowledge of alcohol-related traffic violations, as well as in knowledge of special techniques of detection and investigation. Specialized training in the operation of breath-testing devices is a positive factor. The obvious recommendations to command and supervisory personnel is to provide such training. In addition, command and supervisory personnel have a responsibility for training at their levels, particularly with regard to the scope and nature of the alcohol-related enforcement problem. (This workshop is one part of the necessary command and supervisory training. It identifies specific actions to be taken by command and supervisory personnel, some of which may require even further training. For example, this workshop identifies the need for effective communication of department policy and objectives; in order for supervisory personnel to carry out this action, further specialized training may be appropriate.)

Communication

This area is an extremely broad one. As has been noted in the areas of policy and operations, there is a need for effective communication within the department. There is, in addition, a need for the police organization to be in effective communication with the judicial system and with the community it serves. The judicial system, as a partner in the alcohol-related enforcement and adjudication process, is frequently cited as a factor in the officer decision. Time required for court appearances, the delays and continuances and frequently the failure to convict all determine to some degree whether or not the officer will make an alcohol-related arrest. The need for communication is clear. Communication of the department's policy and objectives to the judicial system is essential for smooth and effective operation of the partnership. Similarly, the patrolman needs to acquire an understanding of the problems of alcohol-related adjudication, particularly the difficulties associated with establishing and supporting the evidentiary structure and the effects of possible penalties and

rehabilitation programs. The factors that were identified in this area had to do with the process of communication, as well as with the need for specific lines of communication.

III. WORKSHOP OBJECTIVES, SCHEDULE AND PROCEDURES

Basically, the objective of this workshop is to present the factors and the recommended actions from the research studies. Beyond this, the workshop is intended to help the participants evaluate the study results in terms of their own experience and the practices of their departments. In addition, the case-study exercises allow for a degree of practice in the application of the necessary management techniques and skills.

Because the studies identified a wide range of attitudes and factors, the recommended actions relate to virtually every command and supervisory function performed in a police organization. Complete training for such a wide range of command and supervisory actions obviously is not possible in a three day workshop. Therefore, the participant can expect only to become familiar with the results and recommendations during the workshop. Complete understanding and assimilation will be achieved only through on-the-job adaptation and use of the actions.

The workshop is divided into twenty units that will probably be scheduled as shown on pages 13 to 19. Some local adaptations can be made but in general the sequence shown must be followed.

The procedure that will be followed in this workshop is essentially that of a conference or discussion group. The Workshop Leader will present some of the material about the research studies and the recommendations in essentially a lecture-type presentation. However, the participant is expected to have read this manual prior to the Workshop and thus be prepared to discuss the factors and recommended actions. More particularly the participant will be expected to have thought about these results in the light of his own experience and to be ready to discuss the extent to which he has encountered such factors. The Workshop Leader will stress this active participation and will do what he can to involve each participant.

In the Case Study that is presented in Units 12, 14, 18 and 20 the participant is expected to play the role of the police official as it is described in the narrative. The narrative is divided into four parts which unfold a hypothetical, but realistic problem involving an alcohol-related crash and its consequences. You as a participant are asked to respond to this narrative in as realistic a way as possible. Make the department and community your own and develop the required material seriously--as though you were going to make use of the plans yourself. You will do the case study as a group exercise, but even so try to keep your own community and department in mind as you help to develop the required plans. Only in that way will the final product be realistic enough to be useful to you and the other members of the group.

The Workshop Leader will give you more specific instructions. After each part of the narrative each group will be asked to present its solution and all solutions will be discussed and critiqued

A final note on procedure concerns the Controlled Drinking Demonstration. Each participant will be given an opportunity to volunteer for this demonstration and the exact procedure of drinking and performance testing will be determined locally. However, to give you a preview of what a typically demonstration is like, Appendix C presents a sample schedule and some comments on the conduct of a demonstration.

WORKSHOP ON FACTORS INFLUENCING

DWI ARRESTS

Day One

0900-0930 Unit 1. Workshop Introduction

The purpose of this unit is to introduce the attendees to the workshop leader and each other, and to describe the techniques that will be used during the workshop. Any administrative matters should be accomplished in this time period.

0930-1030 Unit 2. Exercise to Identify Factors in Simulated Alcohol-related Violations

Using scenarios of hypothetical, but realistic, alcohol-related traffic offenses, the participants are asked to state whether or not an arrest would be made in each scenario and to identify the factors that led them to their conclusion. This unit serves to introduce the research results by leading the participants to think and talk about factors that could influence a patrolman's decision.

1030-1045 Unit 3. Research Studies of Factors--Background
(pp A1-8, 48-51)

This unit describes how patrolmen were surveyed to identify factors that influence their arrest decisions. This unit includes a brief summary of the approach used in each of the two basic studies, and a brief description of the survey activities.

1045-1200 Unit 4. Factors Associated with Officers' Attributes and Attitude
(pp A9-11, 52-57)

This unit summarizes factors, such as the officers age, length of service, and drinking habits, as they relate to the arrest decision in an alcohol-related traffic offense.

1200-1300 Lunch

1300-1400 Unit 5. Factors Associated with the Local Environment and Specific Incident
(pp A9-11, 52-57)

This unit presents those factors that are found in the local environment of the patrolman, such as department policy, court procedure and arrest processing time, as well as those factors that are found in the incident, itself, such as the age or sex of the driver, the weather conditions, and the time of day.

1400-1500 Unit 6. Recommendations for Command or Supervisory Actions
(pp A12-16, 58ff)

This unit summarizes the recommendations that were developed in the research studies for specific actions to be taken by command and supervisory personnel. The actions concern the major management areas of policy, operations, training and communication. This unit provides an overview of the set of recommendations, each of which is treated in more detail in subsequent units.

1500-1600 Unit 7. Alcohol-related Offenses and Enforcement

This unit includes a brief presentation and a directed discussion about the significance of alcohol-related offenses, the total process of enforcement (with particular emphasis on the role of police in enforcement) and information about legal limits of intoxication. Local applications or local considerations can be incorporated here and emphasized.

1600-2200 Unit 8. Controlled Drinking Demonstration
(Appendix C)

In this unit, volunteers from among the participants drink controlled amounts of alcohol and are then given BAC analyses and are asked to perform some psychomotor tests. Drinking and testing continue under controlled conditions until at least some of the volunteers have reached or exceeded a legal limit. During the early part of this evening session, there will be a

presentation and discussion of the nature and effects of alcohol. Alternative activities are described for the possibility that a demonstration could not be performed. (If necessary, half of the group can take part in this session, and half in a second session the next evening.)

1630-1800 Unit 9. Nature and Effect of Alcohol Intoxication (Appendix D)

This unit includes information about the chemistry of alcohol, the physiology of intoxication, the relationship between BAC and performance, as well as a description of the symptoms of inebriation. This unit is a brief presentation of all these topics but emphasizes those which the studies of factors influencing alcohol-related arrests have shown to be important. (This unit is presented during the Drinking Demonstration - Unit 8.)

Day Two

0900-1000 Unit 10. Review of Controlled Drinking Demonstration

This unit is a relatively unstructured discussion of the previous evening's demonstration. If videotapes have been made, they will be shown at this time, and any test scores including handwriting samples collected in the demonstration will be examined. The objective of the review is to reinforce the demonstration of performance changes and associated BAC level.

If a controlled drinking demonstration has not been scheduled, this unit can be devoted to a film or to a discussion of the previous day's activities.

1000-1100 Unit 11. Policy-related Factors and Recommendations (pp A9-11, 16-22, 52-57, 58-61)

This unit begins with a summary of the factors and related recommendations from the research studies in the area of departmental policy. It is followed by a discussion in which each of the participants relates the traffic material to his own experience and his department policies and practices.

1100-1200 Unit 12. Case Study--Introduction and Policy-related Activity

This unit is the first of four devoted to group problem-solving, based on a fictional but realistic case study. In each of four units, information about the fictional study is presented, beginning with a sequence of events that led to a demand for a more effective alcohol-related program. In each unit the participants are asked to identify factors in the narrative and to develop, in as much detail as possible within the time allowed, appropriate command and supervisory actions based on the results of the study in the topic area, as well as their

		own experience. In this unit the participants are expected to develop some ideas about appropriate departmental policy.
1200-1300	Lunch	
1300-1400	Unit 12.	(continued)
1400-1500	Unit 13.	Operations-related Factors and Recommendations (pp A22-29, 61-66) This unit summarizes the operations-related factors and recommendations and provides for discussion. It is in the same format as Unit 11.
1500-1630	Unit 14.	Case Study (continued)--Operations-related Activity This unit is the second of the case-study units. The participants will develop their ideas about policy implementation as expressed in an operations plan.
1630-2200	Unit 15.	Second Controlled Drinking Demonstration If needed, the demonstration can be repeated. Unit 8 is followed except that the nature and effects of intoxication need not be repeated. A film can be shown or the time made available for open discussion.

WORKSHOP ON FACTORS INFLUENCING

DWI ARRESTS

(continued)

Day Three

0900-1000	Unit 16.	Review of Second Controlled Drinking Demonstration Unit 10 is repeated here if a second drinking session was scheduled for the previous night. If this is not needed, all of the following units are presented one hour earlier than indicated.
1000-1100	Unit 17.	Training-related Factors and Recommendations (pp A30-38, 68-70) This unit summarizes the training-related factors and recommendations and provides for discussion. It is in the same format as Unit 11.
1100-1200	Unit 18.	Case Study (continued)--Training-related Activity This unit is the third of the case-study units. The participants will identify training needs from the case-study narrative.
1200-1300	Lunch	
1300-1400	Unit 19.	Communication-related Factors and Recommendations (pp A39-47, 66-70) This unit summarizes the communication-related factors and recommendations and provides for discussion. It is in the same format as Unit 11.
1400-1500	Unit 20.	Case Study (continued)--Communication-related Activity This unit is the fourth and final case-study unit. The participants will identify communication needs from the case-study narrative.

1500-1600 Workshop Summary

In this unit the salient points of the 3-day session are summarized by the workshop leader. The format and depth of this summary are left to the discretion of each leader. Following the summary, if it is desired, a brief time can be devoted to obtaining participant reaction or critique of the workshop.

BIBLIOGRAPHY

Alcohol and the impaired driver. A manual on the medicolegal aspects of chemical tests for intoxication. Committee on Medicolegal Problems, American Medical Association, Chicago, Illinois 1968.

Borkenstein, R.F.: Breath Tests to Determine Alcoholic Influence, Stephenson Corp., Red Bank, pp 33-34 (1963).

Fonarow, Jerrry. Defending against the drunk driving charge. Los Angeles, Cal.: Sherbourne Press, Inc., 1973.

Implied consent laws. Traffic Laws Commentary, National Committee on Uniform Traffic Laws and Ordinances, 15 April 1970, 70-4.

National Committee on Uniform Traffic Laws and Ordinances. Uniform Vehicle Code. Washington, D.C., 1962.

Roberts, D.L. and Fletcher, D.C. A comparative study of blood alcohol testing devices. Rocky Mountain Medical Journal, reprint from 1969.

Traffic officer in court. Traffic Law Enforcement Series, Traffic Institute, Northwestern University, 1965.

U.S. Department of Transportation. 1968 Alcohol and highway safety report. Washington, D.C.: U.S. Government Printing Office, 1968.

U.S. Department of Transportation, National Highway Safety Bureau. Alcohol in relation to highway safety. Highway Safety Program Standard 8,

U.S. Department of Transportation, National Highway Safety Bureau. Alcohol safety countermeasure program. Washington, D.C., 8 June 1970.

U.S. Department of Transportation, National Highway Traffic Safety Administration. Alcohol enforcement countermeasures instructor's manual. #DOT HS-800 596, Washington, D.C., October 1971.

U.S. Department of Transportation, National Highway Traffic Safety Administration. Basic training program for breath examiner specialist: Course Guide, S/N 5003-0046; Instructor's Lesson Plans, S/N 5003-0044; Student Study Guide, S/N 5003-045. Washington, D.C.: U.S. Government Printing Office, July 1971.

U.S. Department of Transportation, National Highway Traffic Safety Administration. DWI law enforcement training: Course Guide, S/N 5003-00191; Instructor's Manual, S/N 5003-00190; Student Manual, S/N 5003-00180. Washington, D.C.: U.S. Government Printing Office, August 1974.

U.S. Department of Tra portation, National Highway Traffic Safety Administration. Factors Influencing Alcohol Safety Action Project Police Officers' DWI Arrests, Final Report. Springfield, Virginia: National Technical Information Service, #PB-232538, 29 April 1974.

U.S. Department of Transportation, National Highway Traffic Safety Administration. Factors Influencing Arrests for Alcohol-related Traffic Violations, Final Report. Springfield, Virginia: National Technical Information Service, #PB-237004, September 1974.

U.S. Department of Transportation, National Highway Traffic Safety Administration. Manual for a selective traffic enforcement program for alcohol-related motor vehicle crashes. #DOT HS-820 209, Washington, D.C., July 1972.

U.S. Department of Transportation, National Highway Traffic Safety Administration. Police traffic services handbook for governor's highway safety representatives. #DOT HS-800 928, Springfield, Virginia: National Technical Information Service, September 1973.

APPENDIX A.

Excerpts from Research Studies of Factors Influencing Alcohol-related Arrests

This appendix contains excerpts from the reports of the two studies of factors influencing alcohol-related arrests.

Each excerpt includes a description of how the study was conducted, a summary of the results (i.e., the factors) and a summary of the recommendations for command and supervisory action. If a reader is interested in the actual survey data and the analyses that were performed, he will have to obtain a copy of the full technical report. Instructions for doing this are given below.

One of the two studies was conducted in areas that were not involved in Alcohol Safety Action Programs. It encompassed a representative sample of departments of varying sizes and jurisdictions. Excerpts from the report of that study begin on the following page.

The study report is identified as follows:

> Factors Influencing Arrests for Alcohol-related Traffic Violations, Final Report. Prepared by Dunlap and Associates, Inc., Darien, CT 06820, for the U.S. Department of Transportation, NHTSA, September 1974 (available from National Technical Information Service, Springfield, VA 22151, #PB-237004).

The excerpts from the second study begin on Page A-48.

BACKGROUND AND PURPOSE OF THE STUDY

In recent years, the growing awareness of the drinking driver's role in highway deaths, injuries, and property damage has led to broadly-based countermeasure programs seeking to reduce the incidence of alcohol-related traffic offenses. Such programs, typified by the Alcohol Safety Action Projects (ASAPs) implemented under federal funding, have employed a wide variety of countermeasures in an attempt to achieve this goal. These have included legislation to better define the problem and to facilitate program implementation, public education campaigns, rehabilitation and other treatment modalities, and many other innovative and potentially fruitful activities. Many varieties of such countermeasures have been developed and employed under the auspices of these action projects.

One element that has been common to nearly all countermeasure programs is police enforcement of the drinking-driving statutes. Attempts to increase the level of enforcement have been made, both because of the deterrent effect this is hoped to produce and because of the desire to identify a greater percentage of drinking drivers for treatment and rehabilitation. In many cases, substantial increases in enforcement have been realized. For example, in New Hampshire, State and municipal police forces made a total of roughly 7700 arrests for alcohol-related (A/R) traffic offenses* in 1973, as compared to about 2800 such arrests during 1971, the year preceding implementation of the State's ASAP. In Nassau County, New York, annual A/R arrests increased by roughly 150% during its ASAP's period of operation.

Despite the marked increase in these and other locations, the national level of A/R enforcement is relatively low. One study, for example, has shown that the typical police officer responsible for traffic law enforcement makes about two A/R arrests per year.** Moreover, it is clear that this level of enforcement has not dissuaded commission of A/R violations. Roadside surveys conducted prior to ASAP implementation, for example, showed that nearly one out of twenty drivers on the road on weekend nights exhibits a blood alcohol concentration (BAC) at or above the statutory limit for A/R.***

---

*Throughout this report, the term "A/R" is used to denote alcohol-related moving vehicle violations. In some states, this offense is referred to as "driving while intoxicated" ("DWI"), in others as "driving under the influence of intoxicating liquor" (DUI or DUIL) and still other variations in terminology exist in certain locations.

**Borkenstein, R. F., Technical Content of State and Community Police Traffic Services; National Highway Safety Board. Washington, D. C. 1968

***Alcohol Safety Action Projects Evaluation of Operations-1972; Vol. I Summary; U. S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D. C.

Effectiveness of A/R enforcement relative to its intended deterrent effects thus is open to serious question. It is also evident that the factors contributing to the relatively low level of enforcement must be understood before any improvement can be realized. This study was undertaken in response to that need.

The study's mission was to assess those factors affecting A/R arrests that directly relate to police officers and the environment in which they function. These may include many contributing elements. For example, enforcement of traffic laws and A/R laws in particular may compete with other duties for the officer's time and attention. This may be especially true if the officer serves a high-crime area or in a department which is unable to field a specialized traffic division. This situation in turn could influence the officer's supervisors, the community's officials, and the general public and affect the relative emphasis that they desire patrolmen to devote to A/R offenses. Further, in some cases, A/R offenses may be relatively difficult to detect. The officer must have grounds for stopping the suspect and reasonable evidence of alcohol impairment or intoxication. These may not be obvious in all cases, especially if the officer has not been thoroughly trained in A/R enforcement. Perhaps most importantly, the officer may exercise discretion in this assignment. That is, he may elect to find an alternative to making the arrest, e.g., by ticketing the driver on a lesser charge, arranging for his safe transport home, or simply allowing him to go. The degree of discretion exercised might depend upon the officer's knowledge of and attitude toward alcohol and drinking-driving, and might be a function of the circumstances of the incident and/or the characteristics of the suspect.

The specific objectives of the study were two-fold:

(1) To identify and gauge the importance of factors influencing police officers' A/R arrests--either positively or negatively--with emphasis on those factors that involve the exercise of discretion;

(2) To determine appropriate remedial actions that can decrease the influence of negative factors and increase the influence of positive factors so that a higher proportion of individuals guilty of A/R violation will be arrested on that charge.

The satisfaction of these objectives required the completion of six tasks. These were:

(1) Identification of Potential Factors

Our aim at the outset of the study was to specify all potential sources of influence for the arrest/no arrest decision for which data would be collected and analyzed. Care was taken to avoid prejudgment of the importance of any potential factor to ensure that a comprehensive list would be developed and that no items of interest would be overlooked. The project staff was greatly assisted in this effort by consulting

personnel from the New Hampshire State Police and the Nassau County, New York, Highway Patrol. Ultimately, twenty-six (26) factors were identified as the major focal points for the study. These are discussed in Section II.

(2) Selection of Survey Sites

NHTSA required that surveys be conducted at a minimum of ten (10) sites, at least two of which would be states having State Police Agencies, two would be states with Highway Patrol forces, and six would be municipalities representing a wide range of population sizes. Site selection was constrained to avoid areas in which ASAP or similar A/R countermeasure programs were established.* Further, it was desired that the sites, as a group, provide adequate representation of a wide range of agency sizes, crime rates, traffic accident rates, weather conditions, socio-economic levels, and the various regions of the nation.

With these requirements in mind, the project staff identified 33 candidate sites and solicited permission to conduct the survey from the Chief Administrative Officers of their respective police agencies. This solicitation produced a very gratifying response, and 24 of these sites were found to be viable candidates for the survey. Of these, eleven (11) were selected as primary sites, one more than the minimum number required. The "extra" site was a relatively low population municipality. Since the police departments of such communities generally employ relatively few officers, we felt that an additional small town should be surveyed to ensure that the smaller agencies received adequate representation in the data base.

(3) Development of Data Collection Instruments and Procedures

Concurrently with tasks (1) and (2), the project staff began the process of identifying the data required to assess the 26 factors and of developing instruments and procedures for collecting these data. In accordance with NHTSA's desires, data were to be collected from four populations of personnel at each site:

- police patrolmen
- police supervisors (i.e., corporals, sergeants, and higher ranks)
- judicial personnel (i.e., judges and prosecuting attorneys)
- other civic officials

---

*It should be noted that NHTSA had funded a previous study of factors influencing A/R arrests in ASAP areas. The results of that study are documented in Report No. DOT-HS-801-151, Factors Influencing Alcohol Safety Action Project Police Officers' DWI Arrests; Arthur Young and Company, 29 April 1974.

Basically similar data were required from all respondents, although certain items of information that pertained only to a particular category of personnel were also identified. Thus, separate data collection instruments had to be developed for each group.

Assessment of factors was found to require both quantitative and qualitative information. The former would permit statistical and other objective analyses of the magnitude of the factor's effects, the latter would provide subjective insights as to "why and how" the factor exerts its influence. In reviewing the data requirements, it was recognized that much of the information sought from police personnel was of a sensitive nature. This seemed especially true of the quantitative data, since each officer would be asked to indicate his own "susceptibility" to each factor, to describe recent A/R situations in which he may have exercised discretion, and to provide certain information on his personal background and habits. The required qualitative data were felt to be less sensitive since they did not focus directly on the officer's own behavior and practices in specific situations.

To minimize the contaminating effects that could arise from the sensitivity of the information sought, it was decided to separate quantitative and qualitative data collection for police personnel. Quantitative data would be obtained through self-administered questionnaires to clearly establish and guarantee the officer's anonymity. Qualitative data, of necessity, would be obtained through face-to-face interviews conducted by members of the project staff--naturally, the staff took care to preserve the anonymity of these data as well. No such separation of quantitative and qualitative data was made for interviews of judicial personnel or civic officials, since the bulk of the data did not relate directly to their practices but rather to their perception of police enforcement. Thus, sensitivity was not felt to be a major issue for those individuals.

Accordingly, the following five data collection instruments were developed:

- Police Patrolman Questionnaire (self-administered)
- Police Supervisors/Administrators Questionnaire (self-administered)
- Personal Interview of Police Personnel
- Judicial Personnel Questionnaire
- Civic Administrative/Legislative Personnel Questionnaire

Copies of these instruments are included in the Appendix to this report. A discussion of the data elements they contain is given in Section II.

(4) Collection of Data

Data collection commenced on 11 March 1974 and concluded on 3 May 1974. During that period, each site was visited by one member of the project staff. Site visits typically were of five or six day's duration.

The specific procedures and schedule of data collection varied somewhat from site to site but generally involved the following activities:

- The staff member first met with the designated liaison officer of the police agency to obtain background data relevant to the site and to finalize any last minute details required to implement the survey.

- Periodically throughout the week, the staff member attended roll call briefings for various squads of officers. After describing the purposes and scope of the study, he issued patrolmen and supervisory questionnaires, as appropriate, to the squad members, remained to answer any questions they might raise, and collected the questionnaires upon their completion.

- At the close of such role calls the project staff member, with the consent of the squad supervisor, selected one or two of the attending patrolmen for personel interviews. These interviews usually were conducted in squad cars during routine patrol tours.

- Periodically throughout the week, the staff member conducted personal interviews with one or more judge, prosecuting attorney, and civic official. Police personnel were instrumental in making the necessary arrangements for these interviews.

Through these procedures, the following data bases were compiled:

. police patrolmen -- 255 questionnaires
69 personal interviews
. police supervisors -- 74 questionnaires
. judicial personnel -- 12 questionnaires, for judges
14 questionnaires, for prosecutors
. civic officials -- 6 questionnaires

During the same period and under a separate contract to NHTSA, Dunlap and Associates, Inc., conducted a series of instructor training institutes for a curriculum package on Crash Injury Management. Most of the enrollees at these institutes were police officers, including both patrolmen and supervisors. They provided an additional source of quantitative data, and produced 12 patrolman questionnaires and 11 supervisory questionnaires.

(5) Analysis of Data

In preparation for data analysis, all personal interview responses were compiled into a single set on a question-by-question basis and were exhaustively reviewed to determine the various points of view expressed and the numbers and types of individuals who shared each view. In reviewing the qualitative data, emphasis was placed on identifying the full range of views and opinions expressed, and the reasons why these were held, rather than on precisely computing the percentage of respondents who shared a particular view. Quantitative data were reduced to punched-card format for automated processing and precise statistical analysis.

The analysis proceeded in three stages. First, based upon the number of A/R arrests they reported during the 12 months preceding the survey, patrolmen completing questionnaires were grouped into four categories:

- Those who made no more than 1 arrest (75 officers)
- Those who made between 2 and 5 arrests (77 officers)
- Those who made between 6 and 15 arrests (62 officers)
- Those who made at least 16 arrests (53 officers)

They were then compared on the basis of various site and personal background characteristics to identify preliminary trends that might suggest important differences between "low" and "high" enforcers. Results of this stage are given in Section III.

Next, the most recent A/R arrests reported by the officers were compared with their most recent A/R investigations that did not lead to arrest. This was undertaken to determine whether situational circumstances tended to distinguish "arrest" from "no arrest" decisions. Results of this stage are also presented in Section III.

These first two stages can be considered preliminary analyses. They dealt solely with a subset of the factual (or historical) data reported by patrolmen and did not consider any of the attitudinal information or subjective data that might bear on the various factors of interest. Assessment of these latter data constituted the third stage of analysis, which was the most extensive of the three. It was primarily on the basis of the third stage that conclusions concerning the magnitude and importance of the factors were drawn. These results are given in Section IV.

(6) Development of Suggestions for Remedial Action

Inputs to this task consisted of the findings developed through the data analysis described above and the suggestions for treating various factors

that were solicited from the patrolmen surveyed. These data were presented to a review panel serving as consultants to the project. The panel members included police personnel and Dunlap staff members experienced in drinking-driving countermeasure programs.

After reviewing the findings the panel members developed suggestions for treating the various factors. The panel then met to extensively discuss all suggested approaches. This led to more detailed definition of potential actions to be taken, and, ultimately, a final set of recommendations representing the consensus of the group. These recommendations were compiled into topical groupings, and are presented in Section V.

SUMMARY OF RESULTS

This report describes a study of factors influencing Alcohol-Related (A/R) arrests that was based on a survey of police and other personnel at eleven locations throughout the nation. Its purposes were to identify variables that affect the arrest/no arrest decision, either positively or negatively, and to develop suggested remedial actions for treating those variables so that a higher level of A/R enforcement might result. The major conclusions of this study are listed below.

The officer's age and experience play a role in his A/R arrest decisions. Younger officers, and those with relatively few years of seniority, tend to have a more positive attitude toward A/R enforcement and make more arrests on that charge than do their older peers. This result was found to hold true regardless of the type of department in which the officer serves or the specific type of duty to which he is assigned.

The officer's personal use of alcohol is inversely related to his level of A/R enforcement. Patrolmen who drink make significantly fewer arrests than those who do not, and those who drink frequently make significantly fewer arrests than those who use alcohol only occasionally.

Lack of knowledge concerning the relationship between alcohol and intoxication is widespread among police officers, and imparts a negative influence on A/R enforcement. Most officers underestimate--often by a wide margin--the amount of alcohol a suspect would have to consume in order to achieve the statutory limit of blood alcohol concentration. This seems to induce a tendency among many officers to identify and sympathize with the suspects they encounter.

Specialized Training has a strong positive influence on A/R arrests. Patrolmen who have received instruction in the operation of breath testing devices and/or in A/R investigation techniques make significantly more arrests than those who have not had such training. However, many officers charged with A/R enforcement--particularly in municipal departments--were found to lack this specialized training.

Specialization in duty assignment can also enhance A/R enforcement. Patrolmen assigned to traffic divisions, in particular, produce higher arrest rates than those charged with general patrol duties.

The officer's perception of the importance of A/R violations affects his arrest/no arrest decisions. Significant differences in this perception were found between "low" and "high" enforcers of that offense. However, there is little or no evidence that these differences stem from any lack of awareness of the causal role of drinking-driving in highway accidents. Rather, some officers seem to believe that A/R enforcement, while important, is no more so than many other duties they face, and

so they do not devote special emphasis to it. Conversely, the "high" enforcers tend to be those who believe the offense warrants high priority.

A generally sympathetic attitude toward A/R suspects is held by a substantial proportion of officers, and has a negative impact on arrests. Most patrolmen, for example, believe that practically anyone who drinks will violate A/R laws on occasion, and that a driver need not be very intoxicated in order to be guilty of that offense.

Officers' perceptions of the penalties for A/R violations have a bearing on their levels of enforcement. "High" enforcers tend to believe these penalties are insufficiently severe, while "low" enforcers seem more concerned over the effects these penalties will have on a suspect and his livelihood.

Numerous alternatives to arrest may be available in A/R situations, and these meet with the approval of many officers. Most importantly, it is the "low" enforcers who seem most willing to take one of these alternatives in lieu of making the arrest.

A particularly important alternative to arrest is available when a sober, licensed driver is a passenger in the A/R suspect's vehicle. Patrolmen will frequently avoid the arrest by insisting that such passenger drive the car. This alternative was chosen by the patrolmen surveyed in two out of three of the no-arrest incidents in which a licensed passenger was present.

Near the end of the duty shift, A/R investigations decrease substantially. This is particularly true in departments that have adopted relatively time-consuming procedures for processing A/R arrests. This fact has an especially important effect on the arrest/no arrest decision since the evening shift typically terminates during one of the peak time periods of A/R violations.

The suspect's degree of intoxication is often taken into account when the arrest/no arrest decision is formulated. "Low" enforcers in particular will often avoid the arrest if the suspect seems only "slightly" too intoxicated to drive legally. Unless it seems clear that the suspect's BAC is a good deal above the presumptive limit, the arrest very likely will not be made.

Weather conditions also affect A/R arrests. There is encouraging evidence that foul weather has a positive influence on the attitude of many officers: they are more appreciative of the risk posed by an A/R suspect when driving conditions are hazardous, and are less likely to avoid the arrest when those conditions prevail. However, foul weather also tends to increase the difficulty of detecting A/R suspects and creates additional demands on the officer's time and attention.

The suspect's attitude can have a strong influence on the arrest/no arrest decision. If the suspect proves uncooperative or argumentative, a positive influence for arrest results. Conversely, the likelihood of arrest decreases when the suspect seems cooperative.

The suspect's race is a key distinguishing characteristic in A/R cases. The officers surveyed--the overwhelming majority of whom were white--reported releasing significantly more non-white suspects than they arrested. The data do not suggest that this reflects a greater tendency to exercise discretion when dealing with non-white drivers. Rather, the officers seem more willing to initiate an investigation when the suspect is not of their own race.

Suspect's age is another distinguishing characteristic of these cases, and patrolmen reported releasing significantly more young (age < 30) suspects than they arrested. This appears to stem from two distinct causes. First, young officers exhibit more sympathy for young suspects, i.e., seem less disposed to arrest a driver of their own age group. Second, older officers seem more willing to stop young suspects, i.e., are more likely to conduct an investigation when the driver is young, even if the evidence of A/R violation is not clear cut.

Suspect's sex also plays a role in the arrest/no arrest decision. Patrolmen seem more reluctant to arrest a woman for A/R violations, largely because processing of a female arrestee is generally more complex and time consuming.

Accident-involvement in A/R cases has a strong positive influence on the arrest/no arrest decision. The occurrence of an accident tends to decrease both the opportunity to exercise discretion and the officer's willingness to do so. However, if the A/R suspect is himself injured in the accident, the likelihood of arrest may decrease. The suspect's injury may provide an "excuse" for the symptoms of intoxication and may preclude timely chemical testing of his BAC.

When the suspect is personally known to the officer, a strong negative influence on arrest results. The same is generally true when the suspect is a prominent member of the community.

Court disposition of A/R cases has a generally negative influence on the arrest/no arrest decision. As many as 25% of the A/R arrests reported by the patrolmen surveyed apparently failed to lead to conviction on that charge. Moreover, "low" enforcers have found that significantly more of their arrests fail to lead to conviction, as compared to the "high" enforcers' experience.

Departmental policy concerning A/R enforcement, as implemented by supervisors, can have a strong influence on the patrolman's decisions. When the supervisor manifests a desire for rigid enforcement, his patrolmen produce fairly high arrest rates. Conversely, if the supervisor seems less concerned about A/R offenses, the number of arrests is generally low.

Processing Procedures for A/R arrests have a major impact on the level of enforcement. Patrolmen serving in departments in which these procedures are complex and time-consuming produce fewer arrests, are more negative on enforcement, and are more reluctant to make such arrests, especially near the end-of-shift.

RECOMMENDATIONS

In this section, we suggest steps to be taken to treat the factors that have been found to affect the arrest/no arrest decision. Development of these steps in complete detail may require additional effort beyond the scope of this project. We have attempted to provide as much detail as possible to ensure that such future development proceeds in the proper direction. Certain of these recommendations may also have to be tailored to the particular needs of a given department or community, and we have tried to indicate how they might best be adapted to suit local requirements.

Our recommendations were derived from two key inputs. The first and more important of these were the factors themselves as described in previous sections. The second were suggestions elicited from patrolmen during personal interviews. It is worthwhile to summarize the patrolmen's suggestions before presenting the final recommendations.

Two questions served as the primary means of eliciting suggestions from the interviewees. These were:

"WHAT, IN GENERAL, WOULD YOU SAY SHOULD BE DONE TO ENCOURAGE OFFICERS TO MAKE MORE DRUNK DRIVING ARRESTS?"

"WHAT DO YOU THINK COULD BE DONE TO INCREASE THE NUMBER OF DRUNK DRIVING ARRESTS?"

The first of these was posed near the beginning of the interview, the second at the end. Because the personal interviews were relatively lengthy, two hours or more often elapsed between these two questions.

While not all patrolmen offered suggestions in response to these questions, most did--and many offered several. These are compiled below in the order of decreasing response frequency.

Establishment of Uniform Adjudication

Twenty-seven (27) responses were received that called for elimination of judicial discretion. These officers urged a cessation of plea bargaining and the perceived differential treatment by courts of "average" and "influential" citizens. They desire fair, uniform treatment of A/R defendants as a means of ensuring that their arrests will more often lead to convictions.

As noted previously, we must bear in mind that it is the "high" enforcers who most frequently take this view. The officers who are most concerned about the absence of uniform adjudication tend to be those who are best motivated to make A/R arrests. Nevertheless, this suggestion should be heeded to the maximum extent possible to ensure that their motivation remains high.

Revision of Penalties for A/R Violation

Seventeen (17) responses called for modification of the current penalties. However, there were two schools of thought. Eleven urged stricter penalties, including jail sentences, increased fines and sterner measures for habitual offenders. The extreme of this viewpoint was given by one officer who suggested enactment of a national A/R law, with adjudication in Federal courts. Six other responses called for reduction of penalties, at least for first offenders. Several officers urged establishment of drinking-driving rehabilitation programs to which a convicted A/R could be "sentenced" in lieu of existing penalties. One even called for total decriminalization of A/R, analogous to the recent trend toward decriminalization of the offense of public intoxication.

Provision of Improved Training for Patrolmen

Sixteen (16) responses were received that suggested improved and more extensive training is required. Most focused on training in the area of detection and investigation of suspected A/R's, i.e., the signs and symptoms of drunk driving and the proper techniques for conducting field sobriety tests. Several urged that training on the Breathalyzer and similar devices should be provided to all officers charged with traffic law enforcement. A few felt that additional instruction should be given concerning the "statistics" of highway fatalities as they relate to drunk-driving.

Only one respondent suggested that training should also address the misimpressions concerning the typical suspect's alcohol consumption currently held by many officers. Nevertheless, it is clearly an important item of information that should be conveyed to as many patrolmen as possible.

Provision of Special Equipment

Fifteen (15) responses dealt with the need for certain equipment to enhance A/R investigations and the construction of the "chain-of-evidence." Six urged development and dissemination of portable, accurate breath testing devices for use prior to arrest. In this way, any doubt concerning a suspect's "legal" intoxication could be dispelled. Nine called for employment of video tape to document the suspect's sobriety tests, attitude and general appearance. Such concrete evidence, they feel, would more strongly convey the merits of the case than would the officer's testimony.

We should note in passing that either or both of these suggestions might require enabling legislation before they could be implemented. However, no respondent specifically called for such legislation as a means of permitting pre-arrest breath testing or the use of video tape.

Revision of Arrest Processing Procedures

Thirteen (13) responses called for a major overhaul of the current procedures associated with an A/R arrest. Major emphasis was placed on the need to minimize the time element, but attention was also called to the voluminous--and often redundant--paperwork resulting from an arrest. There was also some mention of the need to train patrolmen in the proper implementation of these procedures.

Provision of Additional Manpower

Ten (10) responses called for increasing the size of the department to obtain more man-hours of patrol and thus more arrests. Typically, this was cited by officers who offered no other suggestion, e.g., "if you want more arrests, you'll just have to put more men on the force."

Police departments are chronically understaffed, and this fact very likely does tend to depress the total number of arrests made for A/R or most other offenses. However, addition of more men--without any other changes--would not necessarily increase the number of arrests logged by any one officer, i.e., would not improve the average level of enforcement. However, if additional manpower were available for specialized assignment, improvement could be realized. This is addressed in the next suggestion to be discussed.

Establishment of Specialized Patrols

Eight (8) responses urged adoption of modified patrol assignments as a means of enhancing A/R enforcement. The most commonly mentioned technique would employ special squads of officers charged exclusively with A/R enforcement, although a few believed it would suffice to simply revise the duty shift hours to avoid shift termination during the peak time period.

We should also note that several of the officers who made this suggestion indicated they would not relish permanent assignment to such special squads. They pointed out that more frequent A/R arrests would result in more frequent appearances in court during off-duty hours. Also, permanent assignment to A/R enforcement would preclude their participation in the full range of police work, i.e., the assignment would eventually become monotonous and their motivation would suffer.

Provision of Increased Emphasis at the Departmental and Supervisory Level

Eight (8) responses suggested that their superiors must actively emphasize A/R if increased enforcement is to result. Several pointed out that there is no coherent, department-wide policy on A/R. As a result, officers feel they are "on their own," and so develop their own personal A/R enforcement "policy." Two respondents pointed out that existing standards of performance can actually deter A/R arrests. One officer, for example, stated that his supervisor expects him to make a certain number of traffic "contacts" per week (a "contact" may be the issuance of a citation for a moving vehicle violation, assisting a motorist in distress, an accident investigation, etc.). Should he make one or two A/R arrests, he will lose a good deal of patrol time because of the processing procedures, and as a result he may fail to perform to the standard. This officer suggested that the standards should be rewritten, e.g., to treat an A/R arrest as equal to 20 other "contacts."

It must also be reported that six respondents, including two of those calling for increased departmental emphasis, specifically urged that A/R arrest "quotas" not be established.

Acquisition of Increased Public Support

Five (5) responses urged that steps be taken to acquire better public support for A/R enforcement. These officers feel that, while recent public education campaigns have generally helped, even more information concerning A/R and its effects must be disseminated. One respondent voiced the opinion that recent public education campaigns have been misdirected; by concentrating on the "problem drinker," he felt these programs have led the typical drinking-driver to believe that "it's the other guy" who violates the law.

Legislative Revisions

Three (3) responses called for changes in legislation to make post-arrest chemical tests mandatory. One of these officers also urged that "per se" laws be enacted, i.e., to make 0.10% BAC an absolute, rather than presumptive, limit.

In response to our findings and these suggestions, recommendations are developed in the following topical areas:

- Enforcement Policy
- Enforcement Procedures
- Police Personnel Training

- Adjudication System
- Legislation

Each of these is discussed below.

A. Development and Implementation of Enforcement Policy

It is fair to say that there presently exists no formal policy at the sites surveyed that relates specifically to A/R. Policy has been established in other, broader areas in some cases, e.g., for general traffic law enforcement. In some instances, supervisors have taken the initiative of implementing an A/R policy informally. But, patrolmen have been given little formal guidance concerning the relative priority they should devote to this offense; it remains a matter for their own interpretation, and their interpretations vary widely.

If A/R enforcement is considered a high priority item, we conclude that establishment and implementation of a formal A/R policy is an essential and fundamental prerequisite for improved enforcement.

Absence of a specific formal or informal policy regarding A/R enforcement implies either complacency or assignment of a low priority, neither of which encourages enforcement. It is recognized that in some areas A/R enforcement cannot receive highest priority, e.g., areas which have a high crime rate. However, in areas where A/R enforcement is considered to be a high priority item, the Departments must provide clear direction to their men and itemize their expectations, if A/R is to receive the attention it deserves.

While it has been demonstrated that there are a variety of interrelated factors that influence discretion in A/R investigation, none is more fundamental than the priority the Department assigns to this area as expressed through its policy. For example, an individual may be a "high A/R enforcer" who exercises very little discretion because of his knowledge, skill, attitude, etc. However, if the Department deemphasizes A/R enforcement either explicitly or implicitly through formal or informal policy, then the officer has no choice. He must conform and deemphasize A/R enforcement, regardless of his motivation, knowledge and skill. If, on the other hand, the A/R enforcement policy is positive and clearly stated effectiveness will be a function of many other factors.

To repeat, A/R policy is a fundamental and essential prerequisite for improved enforcement. Without an explicit Departmental commitment to a high level of A/R enforcement, it is more or less useless to address the other factors which influence police officer discretion in an A/R investigation.

The key elements we feel are required of a coherent policy are set forth below.

1. Establishment of Standards of Performance

Standards of performance should serve two purposes. First, they should provide supervisors and commanders with a means of evaluating the "productivity" of their subordinates. Second, they should explicitly define for patrolmen exactly what they are to accomplish in order to maintain a satisfactory performance rating. Standards must be quantitatively expressed if they are to serve these ends. For example, it would be totally inappropriate to formulate a standard that simply calls for the patrolman to "arrest every A/R you see." This could not be used for evaluation of his performance, since the supervisor would have no way of telling how many suspects were observed; it would provide no guidance to the patrolman, since it would tell him nothing concerning how hard he is expected to look for A/Rs. A standard such as "make more A/R arrests" would be slightly better, but still insufficient. The patrolman would at least recognize that he is expected to devote increased attention to A/R; but, neither he nor his supervisor could determine how many arrests constitute "more."

One difficulty seems to be that, in the minds of many supervisors and patrolmen, quantitative standards imply arrest quotas. But this need not be the case. Standards can be quantified while retaining flexibility, e.g., by taking into account the patrol hours and locations assigned and the levels of other enforcement activities logged. Further, the standards need not directly address the number of arrests; they could instead focus on the number of traffic contacts to be made, in the expectation that increased contacts will foster increased arrests.

The following are some examples of quantitative standards that could be incorporated into policy relating to A/R:

- Establish requirement for a minimum number of traffic "contacts" per unit time (week, quarter, etc.), with "weighted" values for specific offenses, including A/R. For example, an A/Rs could be assigned a value of "5", a speeding ticket "2", etc. Such standard would provide clear definition of the relative emphasis to be devoted to each offense.

- If portable breath testing devices are to be used for A/R investigations, establish a requirement for a minimum number of tests per unit time. Procedures, of course, should be defined to determine the situations in which such tests are to be administered. This standard would help ensure that borderline cases receive the attention they warrant. In order to evaluate an officer's performance relative to this standard, it would be necessary that all test results be reported to supervisors.

- Establish a requirement for a "target" number of A/R arrests per unit time, adjusted for patrol locations and times. This standard would help ensure that high-incidence A/R places and periods receive intensive surveillance.

- Establish a requirement for an x% increase in the number of A/R arrests that individuals, units, Divisions and/or Departments make per unit of time.

- Establish a requirement that the department maintain at least some minimum ratio of A/R arrests to Alcohol-involved accidents. This would directly relate enforcement to its intended deterrent effects, i.e., if accident frequency increases, so would surveillance and arrests.

In developing a standard, using any of the above methods, care must be taken in determining what is a fair and reasonable number to use for contacts, total arrests percent increase, etc. If such numbers are above what can be achieved, the patrolman will be discouraged and tend to ignore the targets as being unreasonable. If the numbers are too low and easily achieved, they will fail to accomplish the goal of improved A/R enforcement since only a small proportion of the potential arrests will be made.

As in industry or education, norms or performance distributions can be developed by measuring the past A/R arrest performance of patrolmen in the Department or, if that is not representative of "reasonable expectations," determine the performance achieved in other Departments in which circumstances are essentially similar. Industry utilizes such an approach in establishing production standards; educators frequently grade performance by "marking on the curve." Needless to say, such standards must be adjusted to account for differences in priorities and exposure as a function of time and duty assignment.

Each Department should adopt the standards that are best suited to its needs. Whatever form these standards take, they should be quantitative, amenable to evaluation, and well known to all members of the Department. Ideally they should be committed to writing. At the very minimum they should be communicated verbally to the patrolman by his supervisor in a manner which reflects a strong emphasis on A/R enforcement. The patrolman should realize that part of his performance rating will be based on, among other things, his level of A/R enforcement activity. Further, Departmental emphasis on A/R enforcement should be constantly reinforced to avoid having it appear to be a temporary measure to satisfy some immediate need or desire.

Quantiative standards for traffic law enforcement of course are not a new idea. But, though they have long been employed, they have not necessarily always been properly developed or directed; i.e., in isolated instances standards may have been used primarily to generate a steady source of revenue rather than to ensure that proper emphasis is placed on real enforcement needs. Such malpractices have created

distaste among patrolmen and the motoring public for anything that resembles quotas. But, we should not permit the occasional misuse of standards to prevent their proper application. NHTSA's Police Traffic Services Handbook for Governor's Highway Safety Representatives * addresses this point as follows: "Notwithstanding occasional invidious comments from the public about 'quotas' and the 'numbers game', the quantitative measurement of traffic citation activity is properly a concern of traffic officer supervisors.... It is reasonable and necessary to look at each officer's productivity and to make comparisons with horms....Cynicism at the operating level will be minimized wherever traffic law enforcement policies are oriented toward safety and service to the public." We believe that these observations are particularly pertinent to A/R enforcement activities.

2. Establishment of an A/R Enforcement Information System

A formal A/R policy will be of little value unless steps are taken to ensure that it is adhered to. That is, a system for assessing policy needs and evaluating policy implementation must be constructed. This system will require information that will permit police commanders and supervisors to:

- Identify critical-incidence times and locations to determine the most appropriate allocation of resources.
- Establish performance standards for A/R enforcement activity.
- Evaluate the performance of subordinates relative to established standards.
- Monitor enforcement activities to determine influencing factors that should be counteracted.

In constructing such a system, the department must first identify all data required to serve the above and other information needs. Procedures for obtaining those data must be established, and provision must be made for storage, processing, and retrieval. The key point to keep in mind is that an information system is only as good as the data it contains and the personnel who operate it. If certain data essential to an administrative decision have not been collected and stored, the system cannot possibly aid the formulation of that decision, and such "gaps" undoubtedly will occur unless key personnel have been thoroughly trained in the construction and operation of information systems. As an essential first step, then, we recommend that NHTSA or other cognizant agencies undertake the development of guidelines for an A/R information system and a program for instruction of the personnel who will man these systems.

*Highway Safety Division, International Association of Chiefs of Police; Contract DOT-HS-036-2-404

Each A/R information system naturally must be tailored to the needs of the specific department. Thus, the total set of required data may vary somewhat from one location to another. However, a minimum set of data should certainly be common to all systems. We believe these data would include:

- Comprehensive Record of each A/R Arrest. This would include an indication of the time and location of the arrest and the officer involved, together with descriptive information on the suspect (race, age, sex, etc.); descriptive information on the incident should also be included, e.g., the weather conditions, presence of passengers, accident involvement, type, and severity, etc.; finally, the results of chemical tests should be recorded.

- Record of the Disposition of each A/R Case. This file should be cross-referenced to the arrest records discussed above. It would include the final outcome of the case (A/R conviction, acquittal, nolle prosequi, conviction on reduced charge, etc.), together with an indication of the prosecutor and judge involved.

  These data would enable the system to disclose the case types and circumstances that foster problems in adjudication. This would facilitate discussion between police and judicial personnel aimed at mutual resolution of these problems. The data could also be employed to identify additional training needs or procedural modifications to enhance the quality of arrests involving particular circumstances to ensure a higher rate of conviction.

- Records of Key Types of Motor Vehicle Accidents. One of the primary purposes of A/R enforcement is to reduce the incidence of highway accidents that involve alcohol. Records of these accidents, including their times and locations, provide means of determining the appropriate allocation of patrol resources and of assessing the ultimate effectiveness of the enforcement effort. Naturally, it is extremely difficult--if not impossible--to obtain complete records on all alcohol-involved accidents; some go unreported, and in others an accurate determination of alcohol-involvement cannot be made for various reasons. However, quite accurate records generally can be compiled for two key types of crashes:

  - Accidents in which a fatally-injured driver was found to have been drinking.
  - Single-vehicle, injury-producing, nighttime accidents.

  The first category represents a measurable subset of alcohol-involved crashes; the second is a category which research has shown to include a high percentage (50% or more) of alcohol involvement.

The preceding are representative of the primary types of data required to plan, implement and evaluate an improved A/R enforcement operation. Raw data alone, however, do not provide the information necessary for management decisions. The data must be reduced, organized, analyzed and interpreted properly to serve as meaningful inputs to the management decision process. Entire manuals and books have been devoted to analyses and evaluation of community action projects, e.g., ASAP's. Such detail is beyond the scope of this study. Suffice it to say that, as the information system is only as good as the data it contains, the validity of the findings, conclusions and recommendations developed from the data is correlated with the capabilities of the individuals in the areas of data collection, analyses and interpretation.

Fortunately, much of the A/R management information system requirements can be developed and specified quite clearly using the extensive experience gained through the ASAP's. As indicated previously, it is recommended that NHTSA undertake the development of guidelines for an ASAP management information system. Such guidelines are essential in view of the fact that some departments may be inexperienced in the areas of data collection, analyses and interpretation. Such guidelines should be as specific as possible in indicating what data should be collected when and where, what analyses should be performed and how data should be interpreted.

Without an A/R management information system and guidelines for producing valid and reliable information, command and supervisory personnel have no objective method for assessing the seriousness of the A/R problem, where and when increased enforcement is required, the effectiveness of the efforts undertaken and the performance of individuals or groups. As a consequence, management decisions may appear to be arbitrary and negatively influence an individual patrolman's discretion when conducting an A/R investigation.

3. Formulation of Policy to Address Specific Problem Areas

A general policy on A/R enforcement, incorporating clear standards of performance and an efficient information system, should greatly assist treatment of the factors identified in this study. However, specific policy directives should also be developed that focus directly on certain key factors. For example, each department should develop policies that unambiguously communicate:

- Its concern over, and opposition to, the selection by patrolmen of alternatives to A/R arrests.
- Its commitment to support the patrolmen's arrest of A/R suspects who are prominent members of the community.
- Its desire that the arrest take place whenever there are reasonable grounds to conclude that the suspect is "under the influence", or exhibits a BAC at or above the statutory level, even if the suspect does not appear grossly intoxicated.

Again, these specific policy requirements would not be satisfied by a simple directive to "arrest all A/Rs". Rather, the policy must clearly spell out steps to be taken or avoided. For example:

- "Under no circumstance will an officer release into the custody of a third party a suspect believed to be under the influence of alcohol. No attempt will be made to arrange 'safe transport' for such suspect in lieu of arrest."

- "No suspect believed to be under the influence of alcohol will be afforded 'special treatment' because of his social, political, or other prominence."

Departments should adopt policies similar to these to demonstrate their keen interest in A/R enforcement and to ensure that their men know precisely what is expected of them. All ranks should be encouraged to offer suggestions concerning policy, and in particular to suggest circumstances where specific guidelines are required.

B. Specific Enforcement Procedures

Procedures were found to have an important effect on A/R decisions. At several sites, processing procedures proved quite complex, and induced or increased reluctance to make the arrest. At virtually all sites, manpower assignment and scheduling procedures were not optimally designed for A/R enforcement. Finally, suspect investigation procedures were found to be neither standardized nor well suited to their purpose.

We conclude that improvements must be made in all three procedural areas. Our thrust should be to facilitate the task of A/R enforcement, both to encourage patrolmen to make the arrest and to conserve as much valuable patrol time as possible. To this end, we offer the recommendations given below.

1. Establishment of Efficient Arrest Processing

Time-consuming procedures for processing arrests contribute one of the strongest negative influences on A/R enforcement. Such procedures not only magnify reluctance to arrest, but also seriously depress the maximum number of arrests that any patrolmen could possibly make: at many sites, a single A/R arrest will remove a patrolman from his beat for nearly half of his shift. If a high level of A/R enforcement is to be maintained, lengthy processing procedures cannot be tolerated.

We have found that lengthy processing arises from two major procedural elements:

- The involvement of the arresting officer in all steps associated with "booking" the suspect up to the moment of incarceration.

- A requirement that the arresting officer complete voluminous, and often redundant, paperwork.

We believe that the arresting officer's requirements relative to these two elements could be substantially reduced. First, we suggest that all moderate-to-large sized departments should assign one or more men to full-time A/R processing duties, at least during evening and late night shifts. Arresting officers could "hand over" their suspects to these personnel, thus minimizing the loss of valuable patrol time. Smaller departments might be able to provide this service on a part-time basis, e.g., on weekend nights and other periods of high BAC incidence. Personnel assigned to A/R processing should be certified Breath Examiner Specialists (Breath Technicians).

Admittedly, full-time A/R processing would be a relatively tedious and sometimes hazardous or distasteful duty. For this reason, we suggest that any particular officer should serve in this capacity only for relatively brief stretches of time (e.g., one or two weeks) before being rotated to other duties. Alternatively, officers might serve in this role on a (voluntary) overtime basis, and receive appropriate incentive compensation for this service.

As a second recommendation, we suggest that processing forms be extensively revised. The arresting officer should be required to complete a minimum number of reports, specifically standardized to an A/R arrest, to document the fact that he arrested the specified suspect at the indicated time and location. This report should require an absolute minimum of narrative information; rather, a "check-off" format should be used whenever possible. In particular, the officer should not be required to file formal citations for other moving vehicle violations incidental to the arrest, although a section of the A/R arrest report could be devoted to these companion violations. In effect, the recommended A/R arrest report would be analogous to the standard traffic "ticket" used for other offenses--and should require an equivalent time for completion.

2. Manpower Scheduling and Assignment

The manner in which duty tours are scheduled and the duty assignments of personnel have been shown to effect the discretion and the A/R arrest rate of officers.

a. Manpower Scheduling

Near the end of a duty shift, A/R investigations decrease substantially. This is particularly true in Departments that have adopted relatively time consuming procedures for processing A/R arrests. This fact has an especially important effect on the arrest/no arrest decision since the evening shift typically terminates during one of the peak A/R time periods.

The underlying reason for this decrease in A/R investigations near the end of a duty shift is obvious and stems mainly from the long processing procedures which were addressed in the preceding section. Reducing the time to process an A/R suspect will no doubt decrease, but not necessarily eliminate, the reluctance to arrest a suspect near the end-of-shift.

Obviously, modifying the time a duty tour starts and ends so that it does not correspond with peak A/R time periods would minimize the effect of reluctance to arrest at the end of a duty shift. For example, duty tours such as 12 noon - 8 PM, 8 PM - 4 AM and 4 AM - 12 noon would include the peak A/R period during one shift (8 PM - 4 AM). We recognize the administrative, personal and other problems created by modification of the traditional duty tour, particularly the one suggested above. Perhaps such problems could be minimized by simply shifting the start and end times one or two hours forward or back. This would reduce the effect of reluctance to arrest at the end of duty tour, but probably not as much as the above suggested change. Another approach might be to modify the start and end times for only the Traffic Division and/or only on the days of the week when A/R peaks, e.g., weekends. While reduced processing time should minimize the problem of reluctance to arrest at the end of a duty tour, it is recommended that Departments also explore the feasibility of modifying the start and end times of duty tours.

b. Manpower Assignment

There is one opportunity for establishing duty tours to maximize A/R enforcement and that is in the case of specialized squads whose sole responsibility is A/R enforcement. The survey indicated that patrolmen assigned to traffic divisions produce higher arrest rates than those charged with general patrol duties. Special A/R enforcement teams, such as those employed by the ASAP's, no doubt can produce still higher arrest rates.

A/R warrants considerable enforcement emphasis and dedicated units can help fulfill this need. If properly implemented, specialized squads can also serve as a vehicle for providing valuable A/R enforcement experience to a large proportion of a Department's personnel.

Specifically, it is recommended that, in areas where the A/R problem is great and resources permit, Special Enforcement Teams (SET) be established to concentrate solely on the detection, identification and apprehension of A/R violators. The number, size and scheduling of SET's would of course be dependent upon the perceived magnitude of the problem relative to other law enforcement needs, and, probably most important, the Departmental resources which can be devoted to the problem.

Ideally, the size of the SET should be sufficient to produce a "significant" increase in the number of A/R arrests a Department makes per some unit of time. For example, it would be useless to divert Departmental resources to support a SET if the resultant number of A/R arrests remained constant or increased only slightly either because the regular patrol was reduced to man the SET or the regular patrol decreased its A/R enforcement activity, assuming that it was the responsibility of the SET.

What constitues a "significant" increase is difficult to say. The ideal and ultimate measure of effectiveness of increased A/R enforcement is, of course, the number of alcohol related traffic events in the community, i.e., fatalities, injuries, violations, etc. An effective enforcement effort should reduce the number of alcohol related traffic events. Another criterion to measure the effectiveness of A/R enforcement efforts is the average BAC of individuals arrested for A/R. An increase in A/R arrests and a reduction in mean BAC of those arrested indicates that more borderline cases are being detected and apprehended.

Thus, the size of the SET must be sufficient to not only increase A/R arrests significantly, but also demonstrate positive impact on alcohol related traffic events. Each Department must determine the optimum size of its SET based on the magnitude of the A/R problem and the resources it can devote to combating the problem. Should it be determined that a SET of sufficient size to have an impact can be supported by the Department, several steps are recommended.

First, members of the SET should receive special training in A/R detection and apprehension. Comprehensive A/R training requirements are described in Subsection C of the report. SET personnel should be provided with training in all areas specified to the maximum depth possible.

Second, the matter of scheduling tours so that start and end times do not coincide with peak A/R periods has been discussed at length. It is particularly applicable to the SET and, since the SET would be a relatively small specialized group of patrolmen, it might prove easier to modify their duty tours. In some cases, the modified duty tour might even serve as a inducement to volunteer for this special duty. Lastly, with regard to scheduling, limited resources might preclude fielding SET's 24 hours a day, 7 days a week. Accordingly, the time of day and perhaps even the days of the week that the SET is on duty should coincide with the peak A/R periods, e.g., the night shift and the weekends.

The number of men per SET unit must also be determined. One man per car, has the advantage of maximizing the surveillance and, perhaps, deterrence capability of a limited manpower/equipment resource. However, it also may create problems after an arrest is made in terms of obtaining a second officer to dispose of the suspect's car and/or accompany the arresting officer and the suspect--depending upon local arresting procedures. Two officers per unit reduce the surveillance and deterrence capability of limited manpower resources but partially circumvent the above mentioned problems. Two man SET's also provide an opportunity for rotating regular patrolmen through the SET. For example, half of the SET could be composed of a more or less permanent cadre of selected "high enforcers" and the other half would be regular patrolmen who rotated through the SET on a periodic basis. This should improve the capabilities of the regular patrolman in the area of A/R enforcement by providing him with on-the-job training under a specialist. Further, it would reduce the possible effects of boredom and loss of motivation which may result from having a single specialized assignment over a long period of time--particularly since it is related to traffic rather than criminal law enforcement.

With regard to the latter point, as it applies to the "permanent" cadre of SET personnel, periodic rotation should be considered to counteract possible boredom and loss of motivation. However, it should probably be done on an individual basis to avoid losing a "high enforcer" who maintains his performance and wishes to continue in the assignment.

Selection of personnel for assignment to the SET is an important factor in ensuring performance. Policies, procedures, scheduling, etc., may be optimum. However, if the individual is not motivated for one reason or another, performance is bound to suffer. Individual motivation is a function of many factors and is not static. Many of the factors are external to the individual (lack of training, court disposition record, Departmental policy, etc.), can be modified to produce a positive effect on motivation and, therefore, do not enter into consideration during the selection process. Basic characteristics of an individual which can be considered in selecting personnel for the SET are past performance, age and personal use of alcohol.

Clearly, the first consideration in assessing a patrolman's qualifications for SET assignment is his past performance in A/R enforcement. If he has logged a high rate of arrests, it is likely that he will continue to do so, especially if he is freed of other duties and if appropriate policies and procedures are established. The second consideration, we feel, is his personal use of alcohol--there is no need to restrict SET assignment to teetotalers, but neither should we overlook the fact that officers who drink frequently and/or relatively heavily generally are "low" A/R enforcers. Lastly, the officer's age is another factor to consider. While it would be inappropriate to staff the SET with inexperienced officers, we should recognize that younger patrolmen tend to have a more positive attitude toward A/R enforcement.

We should note that these same considerations apply to selection of SET supervisors. It is also crucially important that the supervisors have the respect of their men, and the leadership qualities that earn this respect. Most especially SET supervisors should be selected from those squad leaders who have a proven record of "going to bat" for their subordinates.

The purpose or mission of the SET and the implications for strategy and tactics must be considered. True the primary mission of the SET is to remove the drunk driver from the road. However, should a Department emphasize increasing the number of arrests, the deterrent value of the SET or some combination of both? Should this be accomplished through overt or covert surveillance? Should the Department introduce a procedure whereby members of the SET warn obviously intoxicated individuals, who are approaching their cars, not to drive? (Another method of keeping them off the road.) Should the SET have easily identifiable cars, e.g., marked Alcohol Safety Patrol, to alert the public and thereby serve as a deterrent? Should the SET units patrol individually or in "wolf packs" to increase the apparent number of units in the SET? Should the SET be deployed to specific locations where there is a high incidence of drinking or place under general surveillance roads leading to and from such locations? The preceding and other questions must be considered in developing strategies and tactics. However, the answers must be tailored to the unique characteristics of the community, the nature and magnitude of the A/R problem and the resources available to combat the problem. No standard solution exists nor is any one solution applicable at all times. Strategy and tactics will differ from one Department to another and will change within a Department as a function of current circumstances. Management and supervisory personnel must develop suitable tactics and be alert to the requirement to monitor, evaluate and change tactics--all of which support the need for an A/R management information system.

Regardless of whether a Department is able to field a SET the same considerations regarding strategy and tactics are applicable to the regular highway patrol or traffic division. In other words, regular patrols should be deployed to maximize surveillance at high A/R incidence locations and during peak A/R times. Further, when so deployed, the patrol should be aware of the tactics considered appropriate for the time and location, e.g., covert vs. overt surveillance, one unit vs. "wolf pack," warnings vs. arrests, general vs. specific surveillance of an area, etc. Although not a SET, the highway patrol's or traffic division's primary responsibility is traffic law enforcement and certainly A/R enforcement is one of, if not the most, important aspect of traffic law enforcement considering the number of alcohol related highway fatalities.

3. Suspect Investigation Procedures

There appears to be a need to improve techniques and procedures for investigating A/R suspects. On the one hand, we have shown that a suspect's apparent degree of intoxication affects the arrest/no arrest decision, in that many officers admit reluctance to arrest a driver who seems only "slightly" intoxicated.

On the other hand, we have found that the standard sobriety tests (finger to nose, walking the line, reciting the alphabet, etc.) very often are not employed in A/R investigations. The implication, we believe, is that patrolmen do not fully trust the value of these tests. Our data suggest that these tests more often are conducted in a proforma manner after reasonable grounds for arrest have been established, rather than to aid in the establishment of reasonable grounds. Thus, A/R investigations rely heavily on the suspect's general appearance of intoxication--in the absence of clear symptoms of intoxication, i.e., in borderline cases, there may be no true investigation. A/R enforcement, then, seems based upon overly conservative investigations: patrolmen look for overwhelming, rather than sufficient, evidence before making the arrest.

In part, this situation may be due to insufficient training in the use of standard sobriety tests. However, we feel that even more fundamental reasons may apply. In particular, to our knowledge the validity and reliability of the standard sobriety tests have never been determined under controlled conditions. That is, their ability to distinguish between persons whose BACs are above or below the presumptive limit has not been conclusively demonstrated. We should also observe that these tests were first developed and employed when BAC limits were undefined or set considerably higher than they are at present. It is possible that some or most of these tests are totally unsuited to the 0.10% statutory level.

As a first step, we recommend that formal, controlled research be conducted to assess the reliability of these time-honored tests and , concurrently, to develop and evaluate new tests. Any that are found to reliably and repeatedly differentiate between individuals below and above the presumptive limit should be adopted for use in every A/R investigation. Conversely, any that are found to lead to erroneous conclusions concerning the individual's sobriety should be discarded.

We believe that this recommendation, if implemented, can produce a valuable set of investigation tools that will be both better accepted and more widely used by patrolmen. However, we should bear in mind that all such sobriety tests are basically subjective in nature. In all probability, they will never be 100% reliable, nor will their results always be unequivocal.We therefore believe that more objective investigative tools are also required. In this context, we urge continued development and testing of portable breath testing (PBT) apparatus. Breath alcohol screening devices, if accurate and reliable, would provide preliminary measurements of BAC and reduce the officer's dependence on the subjective symptoms of impairment. To date, prototype PBTs have been developed by several private firms and governmental agencies--some of these have been put to use by police departments on an experimental or limited basis. While this study did not provide an opportunity to assess any data on these instruments, development and mass production of an acceptably accurate PBT seems well within the state-of-the-art. To be sure,

employment of PBTs will create additional requirements for training and legislative revisions (both of which are discussed subsequently) and may have to await resolution of constitutional issues. But, such instruments offer vast improvement of A/R investigation and every attempt should be made to ensure their availability and use.

One other procedure that should be considered in this context concerns the use of video tape equipment to record A/R investigations. As reported earlier several officers interviewed in this study suggested that this approach be taken. A visual record theoretically could be of great value during adjudication of the case, e.g., by presenting a complete description of the arrest scene, by documenting the results of sobriety tests, etc. Also, the tape presumably would show a completely different appearance of the defendant than that which he displays in court, and so might overcome any sympathy the judge or jury might tend to feel for him.

None of the departments surveyed in this study employed video taping in this role, so we cannot formulate any conclusive recommendations for or against its use. However, many law enforcement agencies--particularly those associated with ASAPs--have tried this technique. We suggest that these departments be surveyed to determine what success, if any, they have had with this approach, and whether it should be adopted more widely.

C. Training of Police Personnel

Our recommendations concerning policies and procedures are intended to set the stage for increased A/R enforcement. If implemented, they will help to create the desired departmental emphasis on this offense and facilitate the investigation/arrest process. However, the ultimate responsibility for A/R enforcement rests with the individual members of the force. Policies and procedures can do no more than remove the impediments to this task... they cannot do the job by themselves. Police commanders, supervisors, and patrolmen must understand the task at hand, know precisely what is expected of them, and possess the skills required to meet these expectations. Only through training can we ensure the availability of the necessary knowledge and skill.

Our suggestions for training address specific areas where knowledge and/or skills were found to be lacking, or where particular programs of instruction were found to benefit the level of enforcement.

1. Instruction in the Relationship Between Alcohol Consumption Quantity and Legal and Physical Impairment

Current misconceptions among patrolmen as to the quantity of alcohol consumed by the typical A/Rsuspect contribute to a tendency to sympathize with those suspects and seek alternatives to arrest. Further, the fact that many patrolmen grossly underestimate the quantity that must be consumed to produce a BAC of 0.10% degrades their appreciation of the presumptive limit.

These misconceptions must be corrected if we expect to create the proper attitude toward A/Rand its enforcement. To this end, we recommend the following steps:

- Controlled drinking demonstrations

  Police personnel (patrolmen, supervisors, and commanders) should have an opportunity to observe formal controlled drinking demonstrations. These would enlist the services of volunteers who would imbibe carefully-measured quantities of alcohol and submit to chemical and psychomotor tests of intoxication. Volunteers should be selected who represent a range of drinking behavior (light, moderate, heavy drinkers).

  The total amount of alcohol to be consumed by the volunteer should be apportioned among three or four drinks, to be ingested over a two to three hours period. This will permit the observers to note the consumption quantity associated with increasing levels of BAC and the degradation of psychomotor faculties that occur at those levels.

Subsequent to each drink, the volunteer's BAC could be measured, and tests of his reaction time, motor coordination, etc. could be conducted. Also, the volunteer could be requested to perform the standard sobriety tests designed for A/R investigations.

The primary purpose of these demonstrations would be to clearly show that attainment of the statutory limit of BAC requires consumption of an appreciable quantity of alcohol. As a secondary objective, they would convey the fact that psychomotor performance is indeed markedly impaired at that limit, notwithstanding the fact that the volunteer may not exhibit the appearance of gross intoxication.

These demonstrations could be conducted "live," in which case the observers could be permitted to practice A/R investigation techniques. Alternatively, filmed or video-taped demonstrations would ensure standardization of training and would permit time savings (i.e., the periods during which the volunteers consume their drinks and observe a 15 to 20 minute delay to allow for dissipation of residual mouth alcohol need not be filmed).

- Controlled drinking participation

Police personnel should also have an opportunity to participate as volunteers in controlled drinking demonstrations. In this way, they could experience the subjective reactions associated with the various levels of BAC. Participating officers would not necessarily have to consume a quantity of alcohol sufficient to produce a BAC of 0.10%, since many would experience subjective feelings of impairment at lower levels.

As an instructional tool, this participation would serve two ends. First, the point would be made that alcohol consumption quantities typical of social drinking situations generally produce BACs well below the statutory limit. In particular, most participants will learn that their own usual consumption falls far short of that of their suspects. Second, the participants will see that subjective impairment begins well before the legal limit is reached.

In addition to the above formal programs of instruction, we recommend dissemination to police personnel of various reference material relating to the relationship between alcohol consumption and impairment. These might include tables, charts, slide rules, etc. that relate BAC to such variables as body weight, quantity of alcohol consumed, time spent drinking, etc. However, we should emphasize that such reference materials would be intended to augment, not supplant, controlled drinking demonstrations.

The type of instructional programs outlined above should help to remove any lingering doubts an officer has concerning the fairness of A/R laws. It should also dispel the "there but for the grace of God go I" attitude which many officers consciously or unconsciously hold when they encounter an A/R suspect.

2. Instruction in the Theory and Operation of Breath Testing Equipment

The reader will recall that special training in A/R enforcement was found to have a significant, positive affect on arrests, and that this training consisted primarily of instruction in the operation of breath testing apparatus. In part, this effect may be due to the fact that breath examiner specialist (BES) courses often include participation in controlled drinking demonstrations similar to those suggested above. However, it is likely that at least some of this positive effect is attributable to the fact that BES training better acquaints an officer with the "total system" of A/R enforcement. Through this training, his viewpoint broadens beyond the initial act of apprehension, and he acquires a greater appreciation of one of the key elements of evidence, the processes through which it is collected, and the role it plays in the ultimate adjudication of the case. In short, BES training affords a better understanding of the overall enforcement process, and with this understanding generally comes increased motivation.

As a general recommendation, we urge that BES training be provided to as many patrolmen and supervisors as possible. We recognize that most departments could afford neither the expense nor the man-hours that would be required to send their entire staffs to formal BES courses. As a minimum, however, we believe that the following guidelines should be adopted in determining the breadth of BES training required by any department:

Such training should be provided to -

- All members of special squads or units devoted exclusively or primarily to A/R enforcement
- All traffic division supervisors
- At least 20% of traffic division patrolmen
- For those departments having no separate traffic division, at least 10% of supervisors and patrolmen assigned to general patrol activities

Further, we recommend that each precinct or district within any department should have at least two qualified BESs on duty during every shift. These men need not necessarily be assigned exclusively to that duty, but should be available for suspect processing on an as-needed basis.

The above recommendations apply to the provision of formal BES training, which usually requires completion of an instructional program of 40 plus hours duration. We further suggest that every department conduct breath testing familiarization seminars for all supervisors and patrolmen who play any role in traffic law enforcement. These would not be intended to satisfy the prerequisites for BES certification, but rather to provide a "working knowledge" of the theory and operation of the breath testing device(s). These seminars should be conducted by a certified BES, and could be conducted over the course of several roll-call briefings or during regularly-scheduled in-service training.

The major objectives behind this recommendation are three-fold:

- To provide the full understanding of the total A/R enforcement system to as many as possible of the men responsible for that enforcement
- To ensure that each department provides a sufficient number of qualified BESs to process suspects without delay
- To emphasize the attention the department expects its men to devote to A/R

3. Instruction in Detection and Investigation Techniques

The preceding two recommendations are intended to foster the proper attitude toward A/R among law enforcement personnel. The proper attitude is essential, but, by itself, will not suffice to ensure that the desired level of enforcement is achieved. It is equally essential that patrolmen acquire the skills and knowledge required for efficient detection and investigation of suspects. A desire to arrest A/R suspects will bear little fruit unless the officer knows where and how to find them.

We noted earlier in this report that A/R detection at the present time relies almost exclusively on the observation of other moving vehicle violations or accident investigations. In part, this stems from a perceived need for a "lead-in" charge to justify the A/R investigation when testifying in court, but it also indicates that there is little current emphasis on detection of A/R per se. The supposition seems to be that A/Rs will drive erratically, and that they can be detected simply as a by-product of the run-of-the-mill traffic "contacts."

We believe, as do many "high" enforcers, that A/Rs exhibit symptoms of their impairment that are more subtle than these independent moving vehicle violations. For example, a driver may display his impairment by over-correcting his steering when cornering, weaving slightly within his traffic lane, varying his speed (within the posted limits), etc. Other indications of A/R can include the

driver's general appearance (assuming the officer can observe this while the suspect vehicle is in motion) and various behavioral oddities (e.g., driving with the windows down in cold weather, failure to dim headlights for approaching traffic, etc.). Patrolmen should be trained to recognize these and other subtle symptoms, to pursue suspect vehicles when these symptoms are noted, and to be willing to conduct investigations on the basis of these symptoms. Some might argue that this recommendation would lead to harrassment of innocent motorists. However, we are not suggesting that A/R investigations should take place randomly or capriciously, but rather that officers should be on the alert for the "early warning signs" of the offense. In short, we recommend training designed to produce alert, aggressive surveillance of possible A/Rs, not overbearing or groundless enforcement actions.

Training in A/R detection should also stress the particular problems faced during foul weather and other hazardous driving conditions. The need for increased attention to A/R during these times should be emphasized, as should the fact that the traditional "gross" symptoms of A/R may be masked by the general increase in "bad" driving that occurs under those conditions.

Instruction in investigation techniques, given that detection has occurred, is also required. As we have noted earlier, many officers apparently fail to make full use of roadside sobriety tests, and often have little faith in the reliability of these tests. Standardized training in the conduct of tests of proven reliability and the proper interpretation of their results should help to ensure that investigations will more often lead to accurate assessment of the grounds for A/R arrest.

We also recommend that training programs be developed to instruct patrolmen in the operation of portable breath testing devices. We believe that the magnitude of the A/R problem warrants the use of such devices for investigation purposes. We subsequently will present recommendations to ensure their full utilization.

A particularly important requirement for training in A/R investigation concerns the elements of the offense, i.e., the facts that must be established if conviction is to result. These elements may vary from one state to another, in accordance with the specific wording of the laws, but they generally require that the prosecution prove:

- that the defendant was "operating" the vehicle;
- that the offense took place at a location covered by the statute (in some cases, private property or other specific places might not be included within the ban of the statute);
- that the defendant was "under the influence of alcohol."

In each case, it is incumbent upon the patrolman to obtain the evidence required to verify that these elements were present. Thus, officers must receive thorough instruction as to what constitutes relevant and admissable evidence. In developing training programs to fulfill this need, departments should work closely with representatives of the courts. Ideally, the presiding judge should be requested to delineate the types of evidence necessary and sufficient to prove commission of the offense, and he or members of his staff should be enlisted as instructors for patrolmen training. "Mock trials" should be conducted as an integral part of this training to permit patrolmen to develop and practice their skills in court testimony and to permit illustration of the key role of each evidentiary requirement. "Mock trials" would also afford an opportunity for joint training of police and court personnel, and would help ensure that all judges and prosecutors take a common view of the case elements and admissable evidence.

4. Instruction in the Factors Affecting A/R Arrests

Patrolmen, supervisors, and commanders could benefit from instruction concerning the factors identified in this study. The emphasis, of course, should be on providing accurate knowledge to overcome negative factors and strengthen those exerting a positive influence. For commanders, the training should focus on the development of the policies and procedures to deal with the factors. For supervisors, emphasis should be devoted to ensuring the implementation of these policies and procedures, and to monitoring the activities of their subordinates to determine which factors are exerting an influence and so require special supervisory attention. For patrolmen, instruction in the factors should stress the enforcement problems that they can expect to encounter, the department's policy regarding these problems, and the risks that will be run if these problems are permitted to interfere with their enforcement action.

To better elucidate this recommendation, let us sketch the content of instruction that could be given relative to the negative effects of the approaching end-of-duty-shift. All personnel--patrolmen, supervisors, and commanders--should be acquainted with the data that define the influence of this factor, i.e., the decrease in the incidence of A/R investigations near shift-end despite the high incidence of A/R violations that occurs around the termination of the evening shift. Command personnel should be apprised of the techniques they could employ to counteract this factor, including revision of shift schedules, establishment of efficient and speedy processing procedures, provision of adequate compensation for overtime work, and adoption of standards of performance that emphasize A/R enforcement during critical time periods. Supervisors should be trained to evaluate the impact of this factor on patrolman performance, by assessing the number of traffic contacts recorded near shift-end, the number of A/R arrests logged during that period, and the BACs of the suspects. This will serve to determine whether the level of enforcement diminishes during this critical period. Patrol-

men should be fully informed of the department's desire to maintain a high level of enforcement throughout the shift and the fact that they are expected to perform to standards that emphasize A/R during critical time periods. Care must be taken to stress the fact that modifications to departmental policies and procedures are intended to support the patrolmen in the performance of their duties and the purpose behind all such modifications should be clearly explained. The patrolmen should also be encouraged to submit suggestions for procedural changes that could facilitate end-of-shift arrests.

Similar instructions should be given for each factor. If properly conducted, this training will help to develop a common attitude and approach to A/R enforcement among all levels of the department. We believe that the data presented in this report would form the nucleus of a program of instruction concerning the factors.

5. Training of Police Management and Supervisory Personnel

The preceding training requirements are aimed primarily at patrol personnel. As indicated previously, the effectiveness of patrol personnel in A/R enforcement will be no better than the policies, procedures and expectations established and communicated by police management and supervisory personnel.

Policies, procedures and expectations are a function of priorities and resources available as well as the knowledge and attitudes (re: A/R enforcement) of police management and supervisory personnel. If they are knowledgeable regarding the magnitude and seriousness of the A/R problem and the steps which can be taken to combat it, they will have a positive attitude regarding enforcement which will be reflected in the policies, procedures and expectations they establish. This, in turn, will be reflected in the attitude and performance of the patrolmen. Conversely, if management and supervisory personnel are uninformed and/or complacent regarding A/R enforcement, this will be reflected in the attitude and performance of their subordinates.

Our survey supports this hypothesis. It was found that when patrolmen believe that their supervisors emphasize A/R, arrest rates are high. However, supervisors must explicitly establish the fact that they expect their men to devote high priority to the A/R offense and that the patrolman's performance rating will suffer if he fails to exhibit the desired level of performance. At present, less than one out of five supervisors place "a good deal" of emphasis on A/R arrests when rating a patrolman's performance and only about one in three expect their men to make at least some minimum number of arrests annually. Furthermore, although supervisors believe that discretion plays an appreciable role in A/R situations and assert that they do not favor the exercise of discretion, a substantial minority of patrolmen seem to feel that their supervisors tolerate, or even encourage, discretion.

Thus, we can conclude that supervisors can actively and effectively enhance A/R enforcement by means of the policies, procedures and expectations they establish on a formal or informal basis. However, it appears that insufficient emphasis is being given to the problem at the supervisory level and the supervisor's negative attitude toward discretion is not being communicated effectively to all subordinates.

Many of the recommendations described previously will help ameliorate the above problems, e.g., explicit A/R enforcement policies and procedures, standards of performance for patrolmen and A/R training for patrolmen. However, in order to foster the proper attitude in patrolmen and before effective policies, procedures and training programs can be developed, police managers and supervisors themselves must have the proper attitude relative to A/R enforcement. They must be knowledgeable regarding policies and procedures which will increase police officer detection and apprehension rates and minimize, negate or neutralize those factors which contribute to a reduced rate. They must be familiar with the characteristics of individuals who will be effective on special enforcement teams. They must be aware of appropriate deployment strategies. They must know how to develop and utilize a management information system for planning and evaluating A/R countermeasures. And, finally, they must know how and what to communicate to whom relative to A/R enforcement.

In brief, police managers and supervisors require a training program which will:

- Create or foster the proper attitude re: A/R enforcement by educating them regarding:
  - The nature and magnitude of the problem of alcohol and highway safety
  - The characteristics of the alcohol impaired driver
  - The role of enforcement in combatting the A/R problem
  - The use of discretion in A/R enforcement
  - Factors that influence discretion
- Provide guidelines and techniques for increasing A/R detection and apprehension rate and minimizing or eliminating factors which reduce the rate in the areas of:
  - Policies

- Procedures
- Training/educating subordinates
- Management information systems for planning and evaluation
- Selection procedures
- Deployment strategies
- Communications

In short, we recommend development of a police management training program for A/R enforcement as a means of ensuring and facilitating implementation of our previous suggestions concerning policies, procedures, and patrolman training.

D. Adjudication

In developing recommendations in the area of A/R adjudication, consideration must be given to the findings and conclusions from the survey of both police and court personnel.

A substantial proportion (about 26%) of the most recent A/R arrests reported by patrolmen failed to lead to conviction on that charge. Further, the "low" enforcers experienced a much lower conviction rate than did the "high" enforcers. Perhaps as a result, "low" enforcers more often indicated that plea bargaining imparts a negative influence on their arrest/no arrest decision. However, it is the "high" enforcers who seem most personally "bothered" by the leniency of the penalties and courts.

The courts, on the other hand, are aware of police displeasure with their practices. However, judicial personnel do not seem to believe that this attitude affects A/R enforcement. A fair percentage of judges and prosecutors believe that plea bargaining is a reasonable practice in order to handle the caseload. Finally, the courts are generally satisfied with the current level of A/R enforcement.

To summarize the findings, court disposition practices in A/R cases appear to have some negative influence on the discretionary arrest/no arrest decision, particularly in the case of "low" enforcers. This suggests that if current court practices were modified to provide for stricter and most importantly, more uniform adjudication of A/R cases, A/R arrest rates might increase. In any event, changes in court disposition practices would certainly remove one major source of concern of the police officer and reflect the same fair but firm emphasis expected of enforcement.

Accordingly, the chief goal of our recommendations in the area of adjudication is to ensure that police and court personnel adopt a common attitude and approach to the A/R problem, thereby increasing the deterrent value of the law enforcement and judicial system through increased arrests and convictions. Recommendations are made in the areas of: 1) adjudication policy, 2) improved police/court liaison, 3) use of special prosecutors, and 4) training of court personnel.

1. Adjudication Policy

The major concerns in this area center around the practice of "plea bargaining" and lack of uniformity in the disposition of apparently similar cases, i.e., the wealthy/influential individual who can afford an attorney is more likely to have the charge dismissed or reduced than the less influential and affluent defendant.

In view of the heavy caseloads, it would be unrealistic to expect that "plea bargaining" can be totally eliminated under present circumstances. However, a formal, firm policy for plea bargaining should be established to ensure uniform treatment of all defendants. Factors to be considered in establishing such a policy might include:

- Number of previous A/R convictions.
- BAC level at the time of arrest.
- Incident related factors, e.g., accident, fatalities, etc.
- Magnitude of the defendant's drinking problem.
- Impact of the conviction on the defendant's livelihood.
- Alternative penalties available.

True, such factors are no doubt presently taken into consideration by the judge and prosecuting attorney when trying a case or conducting a pre-trial conference. However, a police officer usually is only aware of two facts: 1) the defendant was arrested based on " reasonable grounds" and subsequently proved to have a BAC above the statutory limit and 2) the courts reduced or dismissed the charge. Based on available information the arresting officer can only conclude that the courts are arbitrary or discriminatory.

It is not meant to imply that police officers are unsympathetic or unwilling to consider extenuating circumstances. They recognize the courts must be free to assess the individual merits of each case. What "bothers" them, in the absence of all the facts, is the apparent arbitrariness and discriminatory nature of the court decision.

Regardless of the number of factors to be considered when trying a defendant or conducting a pre-trial conference, formal and firm guidelines should be established to preclude arbitrary or discriminatory practices. For example, such guidelines could state that "plea bargaining" or charge dismissal is <u>precluded</u> if any one of at least the following factors are present:

- A measured BAC exceeding .15.
- A previous conviction for A/R.
- An accident involving a fatality or injury to another party.
- Refusal to submit to a chemical test for intoxication.

Whether the preceding, or any other list of criteria which may be developed, are fair and reasonable will always be subject to question. The point is that if the judicial system, in collaboration with other interested agencies, develops formal and firm guidelines for adjudication of A/R cases, at least all concerned parties will know what the "ground rules" are, regardless of whether they consider them fair and reasonable. It should also provide some degree of assurance that the practice of "plea bargaining" will not be abused.

Guidelines for when "plea bargaining" should be permitted are somewhat more complex since, by necessity, they must involve consideration of a number of interrelated factors. For example, consider the individual who is a first offender, measures .12 BAC and is dependant upon his car for his livelihood versus the individual who is a first offender, measures .12 BAC, is not dependent upon his car for his livelihood, but is diagnosed as a problem drinker. Should either, both or neither be considered for "plea bargaining?" A case could be made to invoke the maximum penalty for both--to deter them from committing future offenses. On the other hand, "plea bargaining" or alternatives to the statutory penalties might be in order to avoid taking the car from the first individual or to provide rehabilitation to the second. Obviously, the guidelines for permitting "plea bargaining" are not as simple as those for precluding the practice.

Since the scope of this project does not include an assessment of the legal, psychological, sociological and economic implications of "plea bargaining," suffice it to say that formal, firm policy and guidelines should be established in the area of "plea bargaining", at least in terms of when "plea bargaining" is not permitted.

2. Improved Police/Court Liaison

As indicated previously, courts are aware of police displeasure with their practices. However, they do not believe that this attitude affects A/R enforcement. To an extent they are right, since "high" enforcers do not appear to be greatly affected. On the other hand, court disposition practices do appear to have a negative effect on the arrest/no-arrest decisions of "low" enforcers. Further, it is not known whether more strict and uniform adjudication of A/R cases might not result in an increase in the A/R arrest rates of both "high" and "low" enforcers. Failure to communicate the reasons underlying "plea bargaining" and the factors which must be considered, may be another cause for misunderstanding between police and court personnel. Lastly, it seems obvious that

A/R arrests fall far short of expectations. Police personnel realize this. However, the courts are generally satisfied with the current level of A/R enforcement. One might expect the courts to feel this way considering the increased caseload the current emphasis on A/R enforcement has produced.

It is apparent from the preceding that there is a breakdown in communications between the courts and law enforcement personnel. There does not seem to be an appreciation of each other's expectation, requirements and constraints. As a consequence, one system antagonizes the other with a resultant decrement in overall performance of both systems.

It is recommended that channels of communication between police and judicial personnel be opened and frequently exercised. Each "side" should strive to develop an understanding of the needs and problems the other faces relative to A/R. Frank and honest exchange of views, suggestions and "gripes" should be encouraged. Each agency has a job to do and each is trying to do it in the best way possible under the constraints of time and resources.

Specifically, there should be an exchange of views regarding objectives. Obviously this is needed since the courts are generally satisfied with the current level of A/R enforcement whereas the law enforcement agencies are not or should not be since it appears to be far below the potential arrest rate. Needless to say, the courts may not be inclined to encourage increasing the present case backlog. The police, however, must be made aware of the impact of conflicting objectives.

Secondly, with regard to "plea bargaining," law enforcement personnel should be made aware of the underlying reasons and the factors which must be considered when trying an A/R case. Without such understanding, "plea bargaining" could be easily misinterpreted as being arbitrary and discriminatory.

The court system, judges and prosecuting attorneys, must also understand the patrolman's point of view relative to maintaining a high rate of A/R arrests and the adjudication factors which contribute to or detract from achieving these objectives. Conversely, the police must acquire an understanding and appreciation of the court's requirements. Most importantly, judges and prosecutors should be requested to clearly delineate the elements of the A/R offense, i.e., the facts that must be established if conviction is to result. They should also inform the police as to exactly what constitutes relevant and admissable evidence of these elements. Again, a frank exchange of information and a sincere willingness to act upon the information is essential to achieving the ultimate objectives, i.e., getting the drinking-driver off the road.

The courts can take other steps to facilitate enforcement and adjudication by scheduling court dates at the convenience of the arresting officer and other police participants. Police personnel will be discouraged from making arrests if they know they will have to appear in court on their days off, vacation or off-hours, particularly if the compensation is not considered adequate by the officer.

Lastly, it is suggested that, if "plea bargaining" is employed, the arresting officer should be included in the deliberations--not so much for what he can contribute to the pre-trial conference, but rather to gain a better understanding of the factors which determine whether the charge is upheld, reduced or dismissed. It is believed that increased insights regarding A/R adjudication requirements will reduce the negative attitudes currently held by most law enforcement personnel.

3. Use of Special Prosecutors

We have already discussed the need to increase the A/R conviction rate as a means of improving the patrolman's attitude towards his enforcement responsibility. Of course, convictions--assuming they are warranted by the evidence--are also essential if the law is to have the desired deterrent effect. Efforts to boost the rate of conviction thus are clearly desirable. One method of doing so, i.e., reduction of "plea bargaining", was discussed previously. Another technique would be to assign special prosecutors whose sole responsibility would be to try A/R cases. Just as enforcement would improve if dedicated patrol squads were employed, so would adjudication if prosecuting attorneys were selected to specialize in A/R cases. The increased conviction rate realized by utilizing specialists would have a two-fold advantage. One, it would reduce the negative attitude held by some patrolmen that it is useless to arrest someone for A/R since they probably will not be convicted. Secondly, and perhaps more important, it will serve as a deterrent to the general public by eliminating the popular misconception that the probability of conviction for A/R is low so "why not take a chance."

At first glance, it might appear that utilization of special prosecutors for A/R cases would increase court system costs. However, considering the fact that prosecuting attorneys are required for all cases and there is a heavy A/R caseload, it does not appear that there would be any increase in total costs if one or two prosecutors specialized in A/R cases as opposed to spreading the A/R caseload among all attorneys. In its ultimate form, each prosecuting attorney would be a specialist in one or more areas--one of which would be A/R cases.

The effectiveness of this approach has been proven in ASAP's in terms of increased conviction rates and should, if implemented in other areas, serve as a deterrent and reduce the negative attitude of police personnel regarding court disposition of A/R cases.

4. Training of Court Personnel

The misconceptions concerning the relationships between alcohol consumption, BAC and impairment are not restricted to police personnel. Judges and prosecutors also need to be better informed of these matters if they are to have the proper view of the offense and the offenders. In addition, judicial personnel need to know how BAC measurements are obtained, and the circumstances which can or cannot contaminate such measurements, if they are to properly use/assess that evidence. In short, many of the training recommendations developed for police personnel are applicable to representatives of the judicial system. Specifically, then, we suggest that court personnel be permitted to participate in:

- controlled drinking demonstrations
- breath testing familiarization seminars
- "mock trials" of A/R cases

E. Legislative Revisions

Enforcement and adjudication of A/R offenses are intimately associated with the laws governing the offense. These laws not only define the nature of A/R offenses, but also implicitly regulate the bases for the arrest/no arrest decision. Further, the laws establish the magnitude and scope of penalties to be imposed upon conviction of A/R.

We believe that legislative revisions are warranted. Our intent here is not to suggest "harsh" laws that would be needlessly restrictive or which would abnegate individual rights. Rather, we seek modifications that would reflect a more objective definition of A/R and permit application of recent technological and scientific advances to enforcement and adjudication.

1. Enactment of "Per Se" Legislation

We recommend the establishment of a law prohibiting operation of a motor vehicle by a person whose blood alcohol concentration equals or exceeds some specified level. The reader will recall that the laws in force in the states we surveyed (and in most other states) prohibit driving while "under the influence of intoxicating liquor." An absolute BAC limit would, in effect, constitute an objective, universally applicable definition of A/R. The current definition is highly subjective, and open to varied interpretation. We further suggest that the absolute BAC level be set at 0.10%.

The chief effect of this recommendation would be to eliminate the need for the police or prosecutor to demonstrate that the suspect was intoxicated, or "under the influence," at the time of arrest. Proof of this subjective condition often requires extensive evidence of "bad" driving, citations for companion violations, and clear symptoms of gross impairment. Even when such proof is available, the case can be lost, for the judge or jury may insist upon a strict interpretation of intoxication. In practice, the recommended modification would prove most beneficial in borderline cases. Most importantly, it should facilitate enforcement without penalizing individuals who drive after moderate drinking.

We should note that we recommend this revision to augment, but not replace, existing legislation. Since chemical tests of BAC may be refused by some suspects or be unavailable in some cases, there remains a need to enable prosecution solely on the basis of other symptoms of alcohol impairment.

2. Enablement of Preliminary Breath Testing

We earlier suggested that training programs should be developed to improve an officer's skills in A/R investigations. We believe that patrolmen who are thoroughly instructed in the conduct of coordination tests and similar investigation techniques (providing they prove valid and reliable) can accurately formulate arrest/no arrest decisions in the majority of cases they encounter. However, there are and will continue to be cases in which the observable evidence is equivocal, and these may increase in frequency as the level of enforcement improves. Thus, we feel that steps should be taken to incorporate preliminary breath testing into the investigation process.

Portable breath testing devices have been available for some time. In the past, these primarily consisted of instruments that provided only approximate indications of BAC--i.e., the "balloon" test variety of instrument. Recently, however, several manufacturers and public agencies have developed portable instruments designed to produce quantitative, accurate BAC measurements. Some of these remain in the developmental stage, while others have been placed on the market.

A prerequisite for the use of these devices is the enactment of enabling legislation, a step that has been taken in a few states. We would urge that all states adopt such laws. In particular, the enabling legislation must clearly delineate the circumstances under which an officer may request an individual to submit to such a test. These circumstance should not require that the officer have probable cause to believe that the suspect is under the influence of intoxicating liquor, since this would prevent the use of the test until grounds for arrest have already been established. Rather, the officer should be permitted to request the test when he has reason to believe that the suspect has alcohol in his body.

The enabling legislation should also set forth penalties for refusal to submit to the preliminary test. The penalty could take the form of driver's license suspension, similar to that invoked under existing "implied consent" laws. We should also note that the enabling legislation should clearly specify that submission to the preliminary test will not satisfy the suspect's requirements relative to the "implied consent" law. That is, we must not create a "loophole" whereby an A/R arrestee can refuse to submit to a post-arrest chemical test for evidentiary purposes simply because he supplied a breath sample during the investigation.

3. Revision of the Penalty Structure

We believe that the current penalties for first offense A/R should be modified to address three areas of concern voiced by patrolmen:

- The perceived lack of uniformity with which these penalties are imposed;

- the economic and other hardships these penalties can create for some suspects;

- the presumed failure of these penalties to deter recidivism.

For the first of these, we urge enactment of legislation incorporating mandatory penalties; for the second and third concerns, we suggest that the law permit a choice of actions to be taken against the driver's license. Specifically, we recommend adoption of a structure similar to the following:

(1) A mandatory fine of some fixed amount.

(2) Mandatory imposition of one of the following, in accordance with the defendant's choice:

- license revocation for a specified minimum period
- license restriction to specially-equipped vehicles for the same minimum period
- enrollment in and successful completion of an authorized drinking-driver rehabilitation program.

The "specially-equipped vehicles" would be those in which an Alcohol Safety Interlock System (ASIS) has been installed. These systems would be designed to prevent operation of the vehicle by a driver who is under the influence of alcohol. Several such systems are currently under development and laboratory tests of these have shown promising results. Rehabilitation programs have been established under ASAP and other auspices. An extensive review of such programs should be undertaken to identify treatment modalities which have proven successful and efforts should be made to develop and evaluate new approaches of potential value.

Clearly, both the ASIS and rehabilitation approaches require further refinement before they can be offered as viable penalties for A/R. However, they offer a means of restoring a regulated driving privilege to DWI convictees. The knowledge that the penalties have the potential to help the suspect overcome his problem, and the secure expectation that all defendants will be treated alike, will, we feel, have a positive influence on a patrolman's level of enforcement.

The study that was conducted in areas where ASAP's were in force used a representative sampling of departments by size and location. Some of the patrolmen and supervisors who were interviewed were not assigned to the ASAP. Thus, some of the results are comparisons of ASAP and non-ASAP officers.

The study report is identified as follows:

> Factors Influencing Alcohol Safety Action Project Police Officers' DWI Arrests, Final Report. Prepared by Arthur Young & Company, Washington, D.C. 20036, for the U.S. Department of Transportation, NHTSA, 29 April 1974 (available from National Technical Information Service, Springfield, VA 22151, #PB-232538).

METHODOLOGY UTILIZED

A brief summary of the methodology utilized in performance of this study and in the derivation of the study conclusions and recommendations is presented in this section of the report. Included is a characterization of the approach, discussion of the study instruments utilized in performance of our investigation and a description of a representative visit to a study site (ASAP community). Finally, the analytical process applied in reaching the study conclusions are described.

1. The Study Approach

The basic premise upon which this study was based was that the questions to be answered were highly personal. The extent to which the procedures, policies, or mechanisms applied in an ASAP community appeared proper, or met certain preconceived ideas of propriety, mattered very little if they were perceived by a police officer or affected him in a manner which influenced him to perform contrary to the objectives of the program. The survey team also wanted to discover factors which may not be addressed by the program but which also had a negative influence on the officer's motivation to arrest drunk drivers.

Therefore a study procedure which would elicit candid responses from the officers was developed. The survey team wished to gain both direct answers to questions directed to the officer and also motivate him to volunteer information--to tell us "how it is" with him. Facts concerning his attitudes were of primary importance, but the team was willing to settle for opinions if they were strongly held and, in his opinion, influenced his actions. It was necessary to know what factors influenced his decisions and why.

Interview procedures were established by which the officer would be at ease and be motivated to "level" with the interviewer. As might be expected, the team was not aiming for a reliable set of statistics but a statement of the true "sense" of the problem from the officers view. This is termed the "Delphi" approach in which commonality of opinion or attitude is enough to justify definition of a condition of concern. In this manner the information needed to define the required variables, the level of their influence and the frequency with which they influenced the officer would be obtained.

A second strata of inquiry involved investigating the operational environment with which the officer is concerned: The ASAP program; police department supervision and management, the courts and officers of the court; and in some cases, the peculiar characteristics of the community itself. This was done for two reasons. First to determine if the conditions

cited by the officer as influencing him were real or imagined. Secondly, to determine if changes to the systems influencing the officer were feasible. It was intended that our recommendations must be either directed toward changing those factors influencing the officer or reducing their impact upon him.

2. Preparation of Survey Instruments

Survey instruments were prepared to assure a consistent approach to inquiry by interviewers in each ASAP community visited. These documents were prepared to be completed by project staff and were not to be used as "questionnaires" to be completed by respondents.

(1) Interview Guide for Police Officers

The interview guide for police officers was made up of three parts. The first concerned identification and activity data on the officers involvement in DWI patrol and arrest. As most officers interviewed were dedicated to this activity there was little need to gain data on other law enforcement activity.

The second part was to be completed with information generated by a general discussion of factors influencing arrest. The interviewer discussed the program with the officer and the officer "volunteered" factors that he felt influenced himself or other officers in the decision to arrest a "DWI". It was felt that a "volunteered" item would be considered to have more significance than a factor suggested to the officer for discussion. For each factor raised, the officer was asked if it had an influence on him, if it was positive or negative (arrest or not) the degree of influence (significant, moderate, or negligible) and the frequency with which the factor came into play (most cases, many, some).

The third phase, and the most time consuming, involved questioning the officer as to the influence of a series of factors which were developed at the inception of the project. This listing, as well as the instrument and survey technique was tested at two sites prior to using it in the field. Questions which were unclear were revised and factors were added (or deleted) as a result of this testing procedure.

For most of the factors discussed, the officer had the opportunity to discuss the effect that factor (in his opinion) had on other officers and the, the effect it had on him. His comments or qualifications were also noted on the form. The same entries were collected concerning the positive or negative impact of the factor, the degree, and the frequency of influence.

Finally, the officer was asked for additional comments or recommendations as to how the DWI enforcement effort could be improved.

(2) Interview Guide for Police Supervision

Since the basic thrust of the interviews with the police supervisors was to determine what the supervisor perceived the attitude, and beliefs of his subordinates to be, a modified version of the police officer questionnaire was used. Questions dealing with the frequency of decision-making, and some operational details were omitted.

(3) Other Interview Guidelines

As indicated earlier, interviews were held with police administrators, court officials, prosecutors, ASAP officials and others, for the purpose of verifying the information provided by the officers, and to develop input parameters for programs to improve the performance of police officers in the area of DWI law enforcement.

To facilitate the interview process and insure reliable data collection, a series of interview guides were developed for use by the survey team. For each agency, relevant areas of inquiry were identified, and a number of questions were formulated to determine the accuracy of the police officers perceptions relating to the functions and practices of that agency. The areas covered included:

- A definition of the agency's role in the ASAP program
- The policy of the agency toward DWI enforcement
- The attitude of the agency toward DWI enforcement
- The relationship between the officers and the agency and what, if any impact this has on the agency
- Any changes in policy and/or attitude toward DWI enforcement attributable to ASAP
- The agency's perception of the factors that influence a police officer's DWI decisions
- Any recommendations or solutions to problems between the agency and the police officer.

SUMMARY OF CONCLUSIONS

This report describes the study of factors influencing DWI arrests and arrest decisions made by officers who are assigned to specialized DWI enforcement units. Its purpose was to identify variables that affect the arrest/no arrest decision, and to develop recommendations for administrative action that would result in a higher level of arrest activity. The major conclusions are listed below.

The officer's age and experience play a role in his DWI arrest decisions. Of those officers assigned to specialized DWI patrol activities, older officers tend to be more rigid in their enforcement attitudes than are younger officers. Examination of length of police service and specialized traffic enforcement activity indicates a similar trend.

The officer's drinking habits apparently influence arrest decisions; those officers who are light drinkers or do not drink tend to be more rigid in their enforcement activities.

The officer's attitude towards drunk drivers has an influence on his arrest activity. Those officers who have a dislike or distaste for DWI offenders, as might be expected, make more arrests than those officers who expressed sympathy for drinking drivers.

The officer's attitude toward DWI violations has an influence on arrest activity. Although most officers generally agree that penalties, when applied, are appropriate, some expressed concern over the harm that severe penalties might have on first offenders and those who needed their driver's license in order to earn a living.

The officer's attitudes toward the deterrent value of DWI enforcement has an influence. Those officers who do not feel that enforcement activities are a deterrent are less likely to make arrests.

The extent and nature of an officer's DWI training has an influence on arrest activity. Officers who are well trained are better able to identify drunk drivers, collect evidence, and present cases in court; as a result, their confidence is high and their arrest activity improved.

The officer's attitude towards specialized DWI enforcement activities has an influence on levels of arrest. Officers who are knowledgeable of program objectives and generally supportive of the program are more rigid in their enforcement than those who feel the program is ineffective.

The officer's experience in traffic accident investigation has an influence on his arrest activities. Those officers who have experience with traffic

accident investigation tend to have more rigid enforcement attitudes towards DWI offenders.

The officer's self-confidence has an influence on his arrest activities. As might be expected, those officers who are confident of their own abilities reflect a higher incidence of arrest.

The attitude of the driver who has been stopped has an influence on the officer's decision-making. Drivers who have a positive attitude and are cooperative are less likely to be arrested than those drivers who are uncooperative or belligerent.

The political or social status of the driver has an influence on some officers. In many communities, officers expressed an unwillingness to arrest well known persons or persons of high social status because they are unsure of the support they would receive from their department.

The suspect's age has an influence on some officers. Generally, officers do not like to arrest elderly drivers, and many officers did not like to arrest the very young suspects.

The suspect's sex has an influence on some officers. Officers are less likely to arrest a female DWI suspect because of the additional processing time, risk of accusations concerning improper advances, or because of the disagreeable nature of many female DWI suspects.

The nature of the suspect's drinking problem has an influence on some officers' arrest decisions. When an officer perceives a suspect to be a social drinker, he tends to be more flexible or lenient in his arrest decisions. However, if he feels the suspect has a drinking problem, he will be more rigid or positive in his enforcement activity.

The presence of a sober, licensed driver in the vehicle has an influence on many officers' decisions. This condition presents what, to the officer, is a viable alternative to arrest and allows the officer to "get the suspect off the road" without the necessity of an arrest.

The fact that a suspect is stopped close to home has an influence on many officers' arrest decisions. This factor presents an alternative to arrest and is commonplace in many agencies.

The suspect's "story" or rationale for intoxication has an influence on some officers' arrest decisions. These excuses at times cause the officer to sympathize with the suspect and result in a no-arrest decision.

The nature of the suspect's driving has an influence on some officers' arrest decisions. Those DWI suspects who do not exhibit bad driving behavior are more likely to be released than those who exhibit bad driving.

The degree of intoxication has an influence on officers' arrest decisions. Those suspects who are more highly intoxicated are more likely to be arrested than those of a lesser intoxication level, although over the legal limit.

The time required to process DWI arrests has a significant influence on officers' decisions. Officers are less likely to make arrests when faced with a lengthy processing time ranging from two to four hours.

The nature of the DWI processing procedures has an influence on officers' arrest decisions. Those officers who are faced with complicated procedures requiring transportation of suspects to the hospital and later to jail or booking facilities are less likely to make arrests.

The fact that an officer has made a prior DWI arrest during his duty shift has an influence. Officers who have already made one arrest are reluctant to make a second or third arrest during the same duty shift.

The time remaining in the officer's duty shift has an influence. Many officers are reluctant to make arrests shortly before the end of their regularly scheduled tour of duty.

The frequency of court appearances has an influence on the officers' decision making. Officers who are required to appear frequently in court, sometimes up to three appearances as a result of a single arrest, are less likely to make arrests.

The effect of unusual working hours has an influence on officers' morale and subsequently their arrest decision making. It was found that many officers working specialized DWI enforcement are required to work duty shifts that presented a hardship on their health and their family life. As a result, morale suffers and arrest decisions are influenced.

The use of one- or two-man patrol cars has an influence on officers' arrests. It was found that officers working in one-man patrol units make as many or more arrests than officers working in teams.

The area to which the officer is assigned has an influence on his arrest decision. Those officers who are assigned to specialized DWI enforcement activities, yet are assigned to work in areas where few DWIs can be found and the DWI problem is insignificant, tended to believe that the department has no real desire to make DWI arrests. As a result, their arrest decisions are influenced.

The patrol techniques have an influence on the number of arrests made. It was found that officers who aggressively enforced all traffic violations

make more arrests than those officers who specifically look for an attempt to identify drunk drivers.

The voluntary nature of an assignment to a specialized DWI patrol has an influence on the officer's arrest decisions. Those officers who are conscripted or involuntarily assigned to specialized enforcement activities have lower enforcement rates than those who volunteer.

Officers who are stimulated by competition from other units of the department or with other specialized enforcement officers tend to make more arrests than those officers whose activities were not compared to others'.

The relationship of the officer to specialized program administrators has an influence on some arrest decision making. In instances where specialized patrol activities are administered by units outside the department, and officers resent outside influences, their arrest activities are lower.

The nature of equipment and facilities has an influence on the officers' decision making. Those officers who have impaired morale as a result of inadequate equipment or poor facilities tend to make fewer arrests.

The nature of community social conditions has an influence on officers' arrest decisions. It was found that some officers are hesitant to make arrests in areas where certain racial or social economic groups are concentrated because they fear the potential political consequences of the DWI enforcement activities. Many officers tend to avoid making arrests which would appear prejudicial or racially motivated.

The officers' morale has a significant influence on his arrest decisions. Officers with high morale tend to make more arrests and identify more drunk drivers than officers with low morale.

The attitude of other officers has an influence on some officers' arrest decisions. Peer group acceptance and peer attitude towards DWI enforcement appear to play an indirect role in officers' decision-making process.

Officers who are rated on the basis of performance standards tend to make more arrests than those officers in agencies where performance standards are not utilized. It was observed that where informal standards exist officers did not have a clear idea of what was expected of them and tend to set inconsistent standards for themselves.

The policy of the officers' supervisor, where policy exists, has an influence on officers' decisions. In instances where supervisory policy does exist, arrest activity is lower.

The absence of departmental policy has a negative influence on officers' DWI arrest activity. Officers tend to feel that the department does not support DWI enforcement in instances where a clearly defined agency policy pertaining to DWI enforcement does not exist.

The nature of the police agency that employs the officer tends to influence his decisions. State police and highway patrol officers tend to be more rigid in enforcement activities while city police officers are more flexible. Sheriff's Department and some small town officers appear inadequately trained and more subject to political influences and tend to have lower arrest rates.

The quality of the officers' supervisor had a significant influence on his arrest decision activity. A strong supervisor, it was found, is able to instill confidence in the officers, boost morale, and insulate officers from the negative impact of many factors.

The feeling of isolation that many specialized enforcement officers have tends to influence their decision making. Those officers who feel they are not treated or accepted as regular members of the department, due to specialized DWI assignments, tend to make fewer arrests.

The court support officers feel they receive for their DWI activities has an influence on some officers' DWI arrest decisions. Those officers who feel they have good support from the courts tend to be affected positively while those who feel the courts do not support their activities are subject to negative influences.

The faith an officer has in court justice has an influence on some officers' arrest activities. For example, the officer who believes that citizens who can afford an attorney will receive more favorable treatment in court may be discouraged and limit his enforcement activities to cases where evidence is significant.

The support an officer feels he has from the local prosecutor has an influence on his DWI arrest decision. Officers who feel they received good support from the prosecutor are positively affected while those who feel support is low are negatively influenced.

The officers' perception of community attitudes and support has an influence on the officers' DWI decisions. Those officers who feel that community support is good are positively affected whereas those who feel community support is low are negatively affected.

The legality of specialized programs has an influence on some officers' decisions. Officers who are required to work in specialized programs that circumvented the law through improper diversion are negatively influenced.

The weather conditions influence some officers' activities. Although the actual decision to arrest may not be affected by the weather, enforcement activity is low because fewer contacts with DWI suspects are made and vehicles driven by intoxicated drivers are more difficult to identify.

SUMMARY OF RECOMMENDATIONS

The study of factors that influence specialized DWI enforcement resulted in specific recommendations in the following areas:

- Establishment of the Countermeasures Program
- Administration of Law Enforcement
- Management of Operations
- The Adjudication and Sanctioning Process
- Training Requirements.

Presented in the following material is a brief summary of these recommendations:

1. Establishment of the Countermeasures Program

The attitudes of the officer are influenced significantly by the structure of the specialized DWI enforcement program in his community. Following are summaries of recommendations pertaining to the establishment of a specialized DWI program.

(1) Establish a Central Administrative Authority for Direction of the Program

To assure support of each of the agencies concerned with implementation of the program, a program coordinator should be appointed having a direct charter from the mayor and/or City Council to direct the implementation and maintenance of the program. He should assure that program plans are established and implemented by each agency and monitor their performance and the effectiveness of countermeasures applied.

(2) Establish Legislation And Ordinances That Facilitate Performance of Arrest and Adjudication Efforts

States and communities implementing alcohol countermeasure programs should assure that their laws or ordinances:

- Include a per se statute with a BAC limit of .10%.

- Include an "implied consent" requirement whereby on acquisition of a drivers license each driver consents to subject himself to tests which will determine his BAC when the officer has reasonable cause to request such a test.

- Include authorizations to utilize preliminary tests in the field such as portable breathtesting devices that are more indicative of BAC than the standard field sobriety tests.

- Exclude any requirements for companion charges as essential to an alcohol-related offense (i.e., using "bad driving" as additional proof of drunkenness).

(3) Countermeasures Must Be Implementable Within Existing Law

Rehabilitative countermeasures developed as a part of the program should only be applied following conviction for the charge set by the officer. Plea bargaining or adjustments to the charge for any reason other than lack of evidence should be discouraged. Additionally, an effort should be made to reduce all mandatory sanctions and permit increased judicial discretion for the purpose of sentencing DWI's to rehabilitative programs.

(4) Public Relations Programs Must Emphasize the Positive Aspects of Law Enforcement

The alcohol countermeasures program in a community should direct a significant portion of its public information and education efforts toward dispelling a climate of fear of the police. Community support should be built and maintained by emphasizing the serious nature of the DWI program and "protective" aspects of DWI enforcement.

(5) Law Enforcement Agencies Should Adopt a Policy Relating to DWI Enforcement Activities

All police agencies should adopt a policy pertaining to DWI enforcement. The policy should clearly set out:

- The priority to be given DWI enforcement--commitment to enforcement activity

- The role general patrol and specialized patrol officers will play in DWI enforcement--more specifically, the relative priority of alcohol related traffic activity.

- Instructions on the treatment of V.I.P.s and other officers found to be DWI.

- Parameters or a statement relative to evaluation of effectiveness in DWI enforcement.

Policy is defined in different ways and takes different forms in various agencies. The November 1974 MODEL POLICE TRAFFIC SERVICES POLICIES produced for the U. S. Department of Transportation (NHTSA) defines policy as follows:

> "Policy consists of principles and values which guide the performance of a department in a particular situation. It is a statement of guiding principles which should be followed in activities which are directed toward the attainment of department objectives. Policy is formulated by analyzing objectives and determining through research those principles which will best guide the department in achieving its objectives. Policy is based upon police ethics and experience and desires of the community and the mandate of the law.
>
> Policy is articulated to inform the public and department employees of the principles which will be adhered to in the performance of the law enforcement function. Additionally, policy establishes operational standards to assist department employees in the necessary exercise of discretion in discharging their responsibility.
>
> An officer in the performance of his duty is confronted with an infinite variety of complex situations which require policy action. Since policy is objective rather than situation oriented, it is broad enough in scope to encompass most situations. Policy, therefore, must be stated in general terms."

Our experience has shown that a DWI policy includes the following features:

- A Definition or statement that identifies the subject to be addressed
- A statement of scope that identifies those persons, places or times effected
- The problem to be addressed
- The means, efforts or resources that will be used to address the problem
- The priority assigned to the problem

- The goals to be achieved by policy implementation, including broad monitoring or evaluation criteria.

(6) Courts Should Adopt A Policy Relating to Their Support of DWI Cases

Court administrators should develop and implement a policy that details their support of the goals of the Alcohol Countermeasures Program. The policy should pledge consistent application in procedural matters such as acceptability of evidence, sanctioning, and plea bargaining.

2. Administration of Law Enforcement

A number of factors that influence a policy officer's decisions relating to DWI encounters are related to the degree of support his department gives to his activities. Following are summaries of recommendations pertaining to the administration of DWI enforcement activities:

(1) Establish a Simple and Expeditious Procedure for the Processing of DWI Arrests

All steps required in the DWI arrest and processing procedure should be reviewed and shortened where possible. Specific actions should:

- Facilitate field DWI testing through the use of a pre-arrest breathtesting device.
- Reduce paperwork requirements through consolidation and reformating of reports.
- Structure vehicle impoundment procedures to be responsive to officers needs.
- Relieve arresting officers from some transportation and booking requirements.
- Provide adequate facilities for processing of female arrestees.

(2) Develop an Information System that Reports Alcohol Related Traffic Data

Sufficient information should be generated to allow for problem identification, manpower deployment and both agency and officer evaluation.

(3) Establish a System of Officer Performance Evaluation Including Standards of Performance

A system of performance standards for individual officers should:

- Consider the officer's experience and training
- Consider the nature of the DWI problem in the area of the officer's assignment
- Include a range of acceptable activity
- Cover a reasonably long period. Information to be collected might include the following activities:
  - The number of stops made by the officer
  - The number of suspects tested by the officer
  - The number of suspects arrested by the officer
  - The BAC's for all suspects tested by the officer
  - The disposition of all cases involving the officer
  - The number of breath tests administered by the officer in cases where he was not the arresting officer.

(4) Law Enforcement Agencies Should Analyze Their Needs and Expectations for DWI Enforcement Before Deciding to Establish a Dedicated Unit

Not all police agencies require or can support a full time dedicated unit specializing in DWI enforcement. The following alternative approaches should be considered:

- Dedicated Unit--should the law enforcement agency decide to create a special DWI unit, the stigma of undesirability must be overcome. The department should build up a sense of esprit de corps among the officers in the unit and place increased emphasis on the importance of their activity. Incentives to attract capable officers into DWI units should be considered such as increased compensation, more vacation time and special recognition of the officers.

- Combined Units--consisting of support in the form of patrol vehicles, testing equipment, improvement of DWI arrest processing procedures and DWI enforcement training supplied to these agencies. In this way, all the officers will be able to carry out DWI enforcement more effectively than one or two men in a special unit. Likely candidates for this aid are state police and highway patrols and smaller community police agencies.

- Auxiliary Units--This third alternative establishes support capability for regular patrol officers such as special vehicles with testing devices which can be brought to the arrest site. Officers can be relieved of the most onerous elements of arrest processing such as transferring the suspect to the station. The support unit might also assume responsibility for booking the suspect and impoundment of the suspect's vehicle.

(5) Law Enforcement Administrators Should Provide a Full-Time Supervisor Tasked with Monitoring, Evaluative and Motivational Responsibilities

Strong supervision and direction is vital to the maintenance of an effective DWI enforcement countermeasure that utilizes dedicated officers. A good supervisor can sustain morale, maintain a motivated unit and identify and correct many problems before they begin to affect the operation of his unit.

(6) The Law Enforcement Agency Should Carry Out a Strong Community Relations Program Designed to Foster Support for DWI Enforcement

Law enforcement agencies should undertake a program to establish and maintain effective community support of alcohol countermeasures, especially arrest of drunken drivers. This level of support should be constantly monitored. The attitude of other (non-specialized) officers in the department can be tracked concerning DWI enforcement because they often mirror community sentiments. Development of community relations programs should involve the specialized officers as much as possible.

(7) Formalize Relationships between The Law Enforcement Agency and The Alcohol Countermeasures Program Management

The law enforcement agency should not allow the countermeasures staff to exert direct control over the dedicated officers and should not abrogate their responsibilities pertaining to maintenance of DWI

enforcement. Police departments should formalize any agreements between themselves and the countermeasures staff to insure that all enforcement activities will be the primary responsibility of the law enforcement agency.

3. Management of Operations

Certainly the environment in which an officer carries out his enforcement activity can play a large part in shaping his attitudes towards DWI decision-making. Following are summaries of recommendations pertaining to the management of DWI enforcement activities:

(1) Officers Should Be Deployed to Locations Where They Will Be Most Effective in Apprehending Drunk Drivers

In order to overcome the various tactical problems specialized DWI enforcement can create, it is recommended that officers be deployed according to strategies based upon the following:

- The number and location of alcohol-related accidents
- The number and location of prior DWI arrests within the area
- The number and location of drinking establishments within the area.

After the various patrol areas have been identified, the law enforcement agency should create, and supply to the officers working each area, a "beat book" to serve as a guide. This book should contain the following information about the patrol area:

- A description of the overall patrol area including its boundaries, main throughfares and other geographic information relevant to DWI enforcement
- A profile of past DWI arrests and drinking patterns within the patrol area
- A profile of past alcohol-related accidents by time, location, and weather conditions for the patrol area
- A profile of the drinking establishments in the area by location, pinpointing the most heavily frequented taverns.

(2) Provide Adequate Working Quarters and Maintain Equipment for Alcohol Countermeasure Officers

All testing and processing facilities should be of sufficient size to accommodate a large number of suspects and these facilities should be strategically located and accessible to all officers. If the jurisdication covers a wide area, the law enforcement agency and Alcohol Countermeasure's staff should consider establishing several testing sites.

All equipment such as breath testing machines, patrol vehicles or testing vans should be kept in good repair. The Alcohol Countermeasure Program should provide for maintenance and replacement schedules in their budgets based upon reasonable schedules of expected wear and tear caused by patrol activities.

(3) Utilize One Man Patrol Units only and Extend Duty Hours at least One Hour Past Peak DWI Activity

To overcome the impact of certain "negative influences", it is recommended that (1) one-man units be utilized for DWI patrol and (2) duty hours be adjusted to end at least one hour past peak DWI activity.

One-man cars can cover more territory per shift and can give a greater level of DWI arrest support to non-ASAP units.

Extension of duty schedules to at least one hour past peak DWI activity will increase the probabilities that late arrests will be made since the officer knows he would have to work that time anyway.

(4) An Effort Should Be Made to Lessen the Major Evidentiary Problems An Officer Faces in DWI Arrests

Three main areas of evidentiary problems that were identified should be addressed:

- Proof of "bad driving" should not be a required element of the offense
- Companion charges should not be required
- Expert witnesses should not be required to testify as to results of BAC testing.

(5) All Officers Assigned to DWI Enforcement Should Meet Certain Personnel Selection Standards

Several criteria should be established to measure the officer's possible effectiveness as a DWI enforcer. The following elements should be considered in the personnel selection process:

- Select a self-confident officer, one who has demonstrated he can make decisions, good quality arrests and present effective testimony in court.

- Select officers who evidence a willingness to work long hours and even past regular hours if necessary. This is important to overcome the tendency of officers not to arrest suspects late in their shifts.

- Select officers who have substantial enforcement experience because they tend to be more rigid in their enforcement attitudes. Seek out officers who have shown a proclivity for DWI enforcement.

- Select officers who do not have heavy drinking habits so they will not empathize with DWI suspects and not be as susceptible to "sob stories".

- Select volunteers only for dedicated service to preserve morale of the unit and in no case should an officer be assigned to DWI enforcement as punishment duty or because he can't "make it" on regular patrol.

4. The Adjudication and Sanctioning Process

The Adjudication and Sanctioning process can have a large impact upon a police officer's DWI decision-making. Following are summaries of recommendations made pertaining to the adjusted adjudication and sanctioning process.

(1) A Police-Court Liaison Officer Should Be Provided to Coordinate Officer Scheduling and Provide Evaluative Input to the Officer

It is recommended that a Court Liaison Officer be appointed by the law enforcement agency and work within the court. This officer would serve as a channel of input and feedback between the officers and the court. His basic duties would be divided between establishing and coordinating officer appearance schedules and maintaining surveillance of the officers court performance and case disposition.

(2) Officers Should Be Allowed to Contribute Input Into the Plea Bargaining Process

Arresting officers should be permitted to have some input into the plea bargaining process. The officers should be called on to supply such information as the suspect's attitude at the time of arrest, his degree of intoxication, degree of bad driving, and other facts to which the officer was a witness.

(3) All DWI Cases Should Be Handled By Prosecutors and Officers Should Appear As Witnesses Only

Police officers should not be required to present cases in court. Court preparation should be made by experienced prosecutors only.

(4) Provide Orientation for Defendants to Explain the Operation of the Alcohol Countermeasures Program

It is recommended that the countermeasures program establish an orientation session or prepare a booklet for persons arrested for DWI. The material in the orientation presentation should include:

- Information on how to obtain legal advice and representation, including public defenders, legal aid, bar association, etc.
- A description of the Alcohol Countermeasures program emphasizing its purposes and goals
- A description of the rights and responsibilities of the defendants
- A description of the countermeasures rehabilitation and driver retraining programs.

(5) Courts Should Implement Procedures for Efficient Case Disposition and Plea Bargaining

It is recommended that the courts establish a series of guidelines to promote fair and expeditious disposition of DWI cases. Guidelines should include:

- Instructions limiting the number of appearances allowed for each case
- Limitations on the time before trial is held.

(6) Judges Should Strive to Maintain Officer's Faith in Court Justice Through Positive Actions

Judges should take the following steps to ensure police support for court activities remain high.

- Participate in police officer training to instruct the officer in the adversary context of our judicial system, the restraints this places upon the judge and the officer, and what is expected of the officer by the court.

- Conduct all judicial proceedings in open court whenever possible. The officer should be made aware of the reasons for "meetings in chambers". This will go far toward reducing the officer's concern about "back room justice".

- Insist that judges, counsel, and other officers of the court treat police officers with respect during the conduct of judicial proceedings.

5. Training Requirements

Training can overcome fears and reshape attitudes. Following are summaries of training recommendations.

(1) Training in Operations of Enforcement Countermeasures Should Be Given

Subjects to be covered in this area should include:

- Aggressive Patrol Techniques
- Processing Female DWIs
- Determining Social and Problem Drinkers
- Field Testing and Breath Testing
- Deterrent Value of DWI Enforcement
- Impact of Influencing Factors
- Deployment Strategies and Implementation.

(2) Training in the Officer's Responsibilities Pertaining to the Adjudication and Sanctioning Process Should Be Given

Training in this area should include instruction from prosecutors, judges and other court personnel as well as the Court Liaison Officer, and include material pertaining to the police officer's role in the criminal justice system.

(3) Officers Should Receive Training Materials on Various Countermeasure Policies and Objectives

Training in this area should include:

- Law Enforcement Agency Policy
- Performance Evaluation
- The Countermeasures Program
- Community Relations.

(4) Officers Should Be Given Periodic Retraining in DWI Enforcement

As the program progresses, officers should be given "refresher" sessions in all of the areas previously described.

(5) Supervisors Should Receive Training in Current Supervisory and Management Techniques

Since the countermeasures supervisors will be responsible for the day-to-day management of the unit and its men, their training should equip them to handle a large variety of situations. Good supervisory and management techniques should be stressed as well as the following topics:

- Monitoring of Officer's Activities
- Use of Information Systems
- Officer Performance and Evaluation Standards
- DWI Policy
- Countermeasure Operations
- Court Presentations

- Community Relationships
- DWI Problem in the Community
- Factors that Influence an Officer's DWI Decisions
- Techniques of Supervision and Motivation

(6) Law Enforcement Agency Administrators Should Receive Training in DWI Enforcement Operations and Management

- Personnel Selection
- Police Program Management
- DWI Policy
- Countermeasures Operations
- The DWI Problem in the Community
- Management Information Systems Relating to DWI Enforcement
- Factors that Influence a Police Officer's DWI Decisions
- Community Relationships
- Court Liaison.

APPENDIX B.

Scenarios for Exercise to Identify Factors in Simulated Alcohol-related Violations (Unit 2)

Narrative for case study on command and supervisory actions (Units 12, 14, 18 and 20)

Scenario 1 for Unit 2 Exercise

Officer Bill Brown is on motorized patrol in a community similar to yours. Yesterday he celebrated his 45th birthday by having a couple of beers with a few fellow officers after going off duty. This is unusual for Bill who is a very light drinker. Bill, a long-time traffic officer, has been on the department long enough to be anticipating retirement. He has never married and devotes much of his spare time to volunteer work for the Presbyterian Church of which he is a member; he claims his active church life is a natural consequence of his Scotch ancestry and upbringing.

At about 2330--just half an hour before his shift is to end--Officer Brown observes a new model Cadillac make an abrupt stop at a traffic signal that had been red for some time. When the light turns green, the driver reacts slowly and after a jack-rabbit start drives at a much slower-than-average speed, well to the right of the roadway. As Officer Brown follows about one block behind the car, it veers sharply to the center of the roadway and then abruptly back to the right side. Officer Brown decides to stop the car for investigation of a possible DWI. He turns on his dome/flasher lights and follows the car closely for about 30-60 seconds. There is no sign that the driver is aware of the patrol car. Officer Brown honks the horn several times, and the driver finally maneuvers to an abrupt stop just barely off the travelled portion of the roadway.

As he approaches the car, Officer Brown is greeted by the driver who has opened the window and inquires about why he was stopped. The driver's face is moderately flushed; his speech is clear; and his attitude is affable. Officer Brown observes that the driver is a white male about 50 years old. He is neatly dressed and groomed; he appears concerned about why he was stopped, but seems to be willing to cooperate. There are three passengers in the car who are identified as "my wife and kids" by the driver who has proffered his driver's license. Officer Brown detects a slight aroma of liquor and the driver admits to "a couple of drinks" before a late dinner at which he and his family also shared a bottle of wine. The driver also volunteers the information that he is going directly home which is only a short distance away. Officer Brown confirms from the license that the driver's residence is only about one-half mile away. He observes that the car is apparently well cared for and the interior is clean.

Response Sheet

Scenario 1 for Unit 2 Exercise

Based only on the information in the scenario, please make a prediction of how this incident will end.

The suspect will be arrested for DWI. ☐

The suspect will be cited or arrested on another charge. ☐

The suspect will be released. ☐

Please make a note below of those things in the story that lead you to make this prediction.

1. _____
2. _____
3. _____
4. _____
5. _____

Discussion Notes

(You may want to record here the predictions made by the other participants and their comments.)

Scenario 2 for Unit 2 Exercise

Patrolman John Jones of the State Highway Patrol is typical of the men now joining the Patrol. Most of them are white, college-educated, and view their work as a profession for which they have strong ambitions. Jones is in his late twenties and has been on the Patrol for about four years and exhibits a high level of morale.

This event takes place on the 1600-2400 shift while Jones is conducting routine patrol on Interstate 95. He observes an old model sedan approaching at a high rate of speed. As the vehicle approaches, Officer Jones notes that it changes lanes frequently but not in a particularly hazardous way. He decides, as it passes his post, that the driver is exceeding the limit, and he begins pursuit. Jones observes that the vehicle continues at a high rate of speed, which he eventually clocks at 71 miles per hour. The posted limit is 55. Jones turns on the dome and flashers and continues the pursuit down an exit ramp. The time of clocking the suspect was 2018--which is almost exactly the middle of his shift, the weather is clear, and the road is dry and well lighted. The suspects exits the Interstate into an all black housing project.

The driver becomes aware of the patrol car and maneuvers neatly to a stop, well off the road in a well-lighted area.

Jones approaches the car and observes that there are five passengers in addition to the driver. All of the occupants are black. The car is poorly cared for and has several dents and scrapes. When Jones tells the driver that he has been stopped for speeding, he receives a gruff-sounding answer to the effect "...I never drive this old car very fast." The driver produces his license and registration when requested, but in a markedly slow, deliberate fashion. His conversation with Jones is curt--almost surly. As indicated by his license, he lives in the downtown area. He volunteers that he "is out here to show his friends around."

As they talk, Jones observes a case of beer on the back floor and is aware of the strong smell of beer. The driver acknowledges that he has had "a few beers."

Response Sheet

Scenario 2 for Unit 2 Exercise

Based only on the information in the scenario, please make a prediction of how this incident will end.

- The suspect will be arrested for DWI. ☐
- The suspect will be cited or arrested on another charge. ☐
- The suspect will be released. ☐

Please make a note below of those things in the story that lead you to make this prediction.

1. _____
2. _____
3. _____
4. _____
5. _____

Discussion Notes

(You may want to record here the predictions made by the other participants and their comments.)

Scenario 3 for Unit 2 Exercise

Officers Smith and Young are assigned to the Patrol Division of a Metropolitan Police Department. The Department is understaffed and has experienced a significant increase in crime and calls for service during the past few years. Although DWI enforcement is one of the functions of the Patrol Division, the Department has no specific policy relating to this activity, and supervisors tend to place emphasis on other duties.

The officers, working in a two-man patrol car, have just started the 1600-2400 shift on a typical Friday night. Smith, the younger of the two, is driving. The district lies between an industrial area and a residential area. The traffic is moderately heavy because many workers are still en route home. There are several taverns in the area, and it is customary for many workers to stop on their way home for "a few beers."

As the officers approach a usually busy intersection, they observe a car that had been parked in front of a tavern move into traffic and turn right at the intersection, ignoring the stop sign. The officers decide to stop the driver for the stop sign violation, and turn on the dome/flasher lights. There is no evidence that the driver is aware of the patrol car as they drive through the next block. Officer Smith honks the horn several times and the driver finally maneuvers toward the side of the roadway and stops out of the travelled portion, but well away from the curb.

Officer Smith exits the patrol car and approaches the suspect's car. He observes that the headlights are on; the driver is alone in the car and appears to be a white male about 40 years old, dressed in work clothes. Smith requests the driver's license and car registration. The driver's face is flushed and the odor of beer is very strong. The driver acts slowly and deliberately but appears to have difficulty in finding the papers and passing them to Smith. Smith notices that the driver is staring straight ahead and keeps his hands on the wheel as though for steadiness.

The driver answers Smith's question about drinking with the assertion that he has had "about 6 or 8 beers since I left work." He states that was about 1-1/2 hours ago, which seems to be correct. The driver answers Smith's questions very tersely, but is not aggressive or surly. The license indicates that the driver is a few blocks from home.

Response Sheet

Scenario 3 for Unit 2 Exercise

Based only on the information in the scenario, please make a prediction of how this incident will end.

- The suspect will be arrested for DWI. ☐
- The suspect will be cited or arrested on another charge. ☐
- The suspect will be released. ☐

Please make a note below of those things in the story that lead you to make this prediction.

1. _____
2. _____
3. _____
4. _____
5. _____

Discussion Notes

(You may want to record here the predictions made by the other participants and their comments.)

Case Study Narrative for Use in Units 12, 14, 18 and 20

Introduction

The following narrative is of a hypothetical situation. It describes, however, a realistic situation that could be encountered in any department, and it is quite likely that many persons could recognize very similar situations in their own experience. In order to complete the case study exercise within the allotted time, this narrative includes only the essential information. In real life the police officer called upon to deal with the situation described here would have much more detailed information and, by being a part of the situation, would have a more personal, intuitive knowledge of the events and their impact on the community and department. It is completely impractical even to attempt to duplicate that detailed and close association within a written narrative.

The characteristics and the events that are described in the narrative are sufficient to identify the need for actions such as are recommended by the research studies. In addition, it is hoped that there is enough detail to stimulate each participant to think of all the factors that affect the arrest decision and of the ways that he in his own epxerience would cope with these factors.

Some factual data has been omitted from the case studies. These data should be completed by the instructor so as to approximate actual conditions in communities where participants are employed.

NARRATIVE

Part 1 for use in Unit 12. Case Study: Policy-Related Activity

In this narrative we are asking you to assume the role of a newly appointed chief of police. The city that your department serves has approximately ____ population. The police force consists of about ____ sworn personnel. The city is an industrial center and is made up of several sections that range from the wealthy, predominantly white suburbs to inner-city areas, housing a substantial number of poor-non-white families. There are also commercial areas that include the downtown shopping area as well as suburban shopping center. There is also, of course, an industrial area. There are many small neighborhood drinking establishments in the industrial area and the adjacent working class neighborhoods. On the perimeter of the suburban residential areas, there are several restaurants and nightclubs which dispense liquor.

The city is managed by a City Manager reporting to an elected council. There appears to be no unusual incidence of crime or of traffic accidents. However, the Council is of the opinion that traffic accidents are increasing.

The department includes a Traffic Division, which functions mainly in the downtown area, and also includes a Patrol Division, which has the responsibility for traffic functions as well. There is no program of countermeasures for alcohol-related offenses.

On a week end in late summer, just after 0100 Sunday, a patrol car answers a call from the scene of a one-car accident. The accident occurred on a road leading to one of the suburban residential areas. The vehicle apparently left the road at a high rate of speed when the driver failed to negotiate a curve. A young male about 25 years of age is pinned in the car, which apparently overturned and is extensively damaged. He apparently was the driver of the vehicle. A female about the same age was apparently thrown from the vehicle in the impact and lies unconscious or dead about 30 feet from the wreckage of the car. There is a moderately strong odor of liquor in the vicinity of both the driver and the passenger. The patrolman calls for assistance and carries out his prescribed duties. His investigation produces evidence that the vehicle was traveling at a high rate of speed and that the driver and his passenger had attended a party in the neighborhood, leaving just a few minutes before the crash was heard. The driver was critically injured and hospitalized. The female passenger was dead on arrival at the hospital.

The fatal accident is given a considerable amount of attention in the media. Initially, the focus of this attention is on the problem of alcoholic abuse, but as the reporters carry out their investigation, they become aware of the following:

- There is no alcohol countermeasures program in the department.
- There are no special policy statements or directives to the patrolmen concerning DWI.
- Accident statistics, particularly with regard to alcohol-related offenses, are not easily obtained nor are they particularly clear; however, it appears that your community has a higher rate of alcohol-related accidents than other nearby cities and throughout the state in general.
- Officers on the department indicate that they are unsure of what the administration expects relative to DWI enforcement, and have, by tradition, relied heavily on alternatives to arrest.

As these facts are revealed, the focus of the media's attention shifts to the department and its role in alcohol-related enforcement. A pressure quickly builds for the police department "to do something about the drunk driver."

The City Council now directs you to develop a policy concerning alcohol-related offenses. You are asked to produce a policy statement along with a brief overview of how it will be communicated to personnel of the department, and how you will ensure that it is carried out.

(Note: This is the end of Part 1 of the narrative which relates to Unit 12. You should begin now to develop the solution required by that Unit.)

Part 2 for use in Unit 14. Case Study: Operations-Related Activity

The policy documents you produced in Unit 12 have been reviewed and approved by the City Manager. The Manager passed the documents on to the Council, which has also reviewed them and being in general agreement has asked the department to present a more detailed plan for alcohol-related enforcement and to present this plan at the next Council meeting. You have been asked to design a specialized program for the department, including the assignment of a small unit with sole responsibility for DWI enforcement. They ask you to be prepared with plans for the deployment of men and cars for this program and with information about how you intend to select, supervise and control personnel. They are also interested in knowing about additional training or other features that might represent additional cost.

(Note: At this point you should begin to develop the solution required for Unit 14. Obviously, you do not have sufficient detail to prepare a complete plan of deployment. You should, in that regard, concentrate on the principles you would follow in your planning.)

Part 3 for use in Unit 18. Case Study: Training-Related Activity

The planning information you presented at the Council meeting has been accepted by the Council and you have been instructed to initiate the plans immediately. The City Manager attended the Council meeting, and during the discussion of your plan said that he was aware of a source of Government funds to be applied to training of policemen for alcohol-related enforcement. Your managers, with the endorsement of the Council, have asked you first to develop a DWI enforcement training plan and be prepared to define the required areas of training and to estimate the training hours that might be required for general patrol officers, for specialized DWI enforcement personnel and for DWI enforcement supervisors. They are initially most interested in knowing the nature of training that you think is required. The Council have, therefore, requested your training plan as the next submission.

(Note: At this point you should begin to develop the solution required for Unit 18. Again, there is insufficient detail for a complete plan. You are asked to develop the concept of a plan and to assume that there has been essentially no specialized alcohol training within the department except for the laboratory technicians.)

Part 4 for use in Unit 20. Case Study: Communication-Related Activity

Assume now that your plan has been completely prepared and approved and you are to begin implementation. You are aware of the attention that was given to the fatal accident by the media and of the resultant response by the Council and City Manager. You are preparing now to implement the approved plan.

At this point the City Manager is concerned with the communication of the elements of your plan to the members of the police department, the public as well as to any related or affected agencies. The Manager expresses his concern to you and states that funds are available to assist in opening lines of communications, both within and outside of the department. He requests that you outline a program for communicating with the appropriate groups. Your outline is to include an identification of these groups, an overview of the types of information that should be communicated, the means of communication and any special considerations involved.

APPENDIX C.

Controlled Drinking Demonstration

This appendix contains a general description of controlled drinking demonstrations and a typical schedule of events.

The controlled drinking demonstration scheduled for the first evening is a critical part of the workshop. One important finding of the research studies was that both patrolmen and their supervisors are poorly or incompletely informed about alcohol and intoxication and, in particular, about the amount of alcohol that must be consumed to achieve statutory limits of blood alcohol concentration. A controlled drinking demonstration has been proven to be a dramatic, effective means of imparting this knowledge. Such demonstrations are a part of training programs designed for patrolmen and breath-examiner technicians in police organizations, as well as of training packages for traffic-court judges and prosecuting attorneys.

Each demonstration will be conducted according to local needs and facilities, but each will include the following features:

1. As part of registration, each participant is required to certify his medical and psychological fitness to drink if he wishes to volunteer.

2. A physician will probably be in attendance.

3. Drinking is voluntary and anyone may terminate at any time. No more than half of the participants will drink.

4. No firearms are allowed (either staff or participant) in the demonstration room or in the dining room during the meal after the demonstration.

5. No food will be consumed for three hours prior to the demonstration to allow for more rapid and predictable alcohol absorption.

6. Liquor will be used in the drinks, not beer or wine.

7. If it is necessary for the participants to drive from the site of the demonstration for a meal or to their living quarters, transportation will be arranged.

A Typical Schedule

1600-1630	Indoctrination
1630-1700	Present initial parts of Nature and Effect of Alcohol
1700-1730	Volunteers ingest first drink (50-60% of total alcohol)
1730-1735	No drinking--volunteers may elect to stop

1735-1745 Ingest second drink (20-25%)

1745-1750 No drinking--volunteers may elect to stop

1750-1800 Ingest third (final) drink (20-25%)

1700-1800 In parallel with above events, continue discussion/ presentation

1800-1830 Rest period

- No drinking
- Complete discussion/presentation

1830-1900 Measure BAC

1900-2000 Performance testing

The objective of this testing is to show changes in performance associated with drinking. The measures of performance will be:

- simulator scores (if used)
- reaction time (if used)
- observers' evaluation of sobriety tests
- volunteers' self-reports

APPENDIX D.

Chemistry and Physiology of Alcohol

This contains information on the properties of alcohol, its physiology and chemistry in the human body. Some properties of BAC and its computation are also included.

Table III (Pages D-14 - D-19) lists medical symptoms that can be confused with intoxication.

A. Alcohol Properties and Production

1. Types of Alcohol

a. Ethyl Alcohol. The alcohol found in alcoholic beverages is known as ethyl alcohol. Other common names include grain alcohol, neutral spirits and ethanol. Its chemical formula is C_2H_5OH. It is a clear, colorless liquid that imparts a burning sensation to the mouth and throat when swallowed. Pure ethanol has a very slight, pleasant odor; the odor commonly associated with an alcoholic beverage usually comes from the raw material used to make the drink or from added flavoring. It is freely miscible (soluble) in water.

Ethyl alcohol has a depressant effect on the body. It is generally harmless when consumed moderately but can be highly poisonous when consumed in quantity.

Ethyl alcohol can be produced both synthetically and by fermentation of sugars. When it is to be consumed as a beverage, legally it must be produced by fermentation. Synthetically produced alcohols, used for industrial purposes, are typically denatured to make them unfit for human consumption. Denaturing involves the addition of a small percentage of unpleasant or poisonous substances. Their removal to make the alcohol fit for human use would be extremely time-consuming and costly. Denatured alcohol is not taxed.

b. Methyl Alcohol. Methyl alcohol is commonly known as wood alcohol, since it was formerly made by the destructive distillation of wood. It is presently largely made synthetically. It is known as methanol. Its chemical formula is CH_3OH. Methyl alcohol is a colorless liquid with a wine-like odor and a burning taste. It is used in the manufacture of industrial solvents and chemicals and is highly poisonous if swallowed or inhaled.

c. Other Alcohols. There are many other types of alcohols used for various purposes. For example, isopropyl alcohol is used as a rubbing base alcohol; butyl alcohol is a base for perfumes and fixatives.

2. Production of Alcohol

a. Sources. Any material can serve as the basic material for alcohol as long as it contains 12-15% sugar. Such materials

might be fruit juices, malt or cereal grain extract, vegetable pulp (potato, cactus), and molasses.

b. Fermentation. Fermentation is the process by which all drinking alcohols are produced. Yeast from the air, or added as a pure culture, produces alcohol and carbon dioxide by fermenting the sugars in fruit juice, cereal grain mash, or other raw material. Maximum alcohol content of a fermented beverage is 14-15% by volume; higher alcohol contents are produced by a further process of distillation.

c. Distillation. Whiskey, gin, rum, brandy, etc., attain high alcohol contents through the process of distillation. Alcohol boils at 78.3°C (173°F) and water at 100°C (212°F). When a mixture of alcohol and water is heated, the alcohol boils at a lower temperature. The resultant steam is caught and cooled. By repeating the process, nearly pure ethanol can be obtained.

d. Types of Beverages. The cources, method of production and approximate alcoholic content of some typical beverages are shown below:

Beverage	Most Common Raw Material	Method of Production	Approximate Alcohol Content-Percent (v/v)
Red Wine	Red skinned grapes	Fermentation	Up to about 14
Champagne	Grapes	Grape juice in process of fermentation bottled at 10-14% alcohol, fermentation continues producing carbon dioxide, hence bubbled or sparkling wine	About 14
Cider	Apples	Fermentation	8-10
Beer	Cereals--as rye	Brewing-fermentation stopped at desired alcohol content	3.5-6

Beverage	Most Common Raw Material	Method of Production	Approximate Alcohol Content-Percent (v/v)
Whiskey	Cereals (rye, corn, barley, etc.)	Distillation	15-50
Gin	Cereals, etc.	Ethanol + water + flavoring	50

e. Congeners. In addition to alcohol and water, alcoholic beverages contain numerous compounds or impurities known as congeners. These typically impart a characteristic flavor and odor to the beverage. They constitute a very small proportion of the total volume of the beverage. There is no evidence that congeners contribute in any discernible degree to the depressant effect of alcoholic beverages.

f. Proof System. In the United States, the proof of an alcoholic beverage is twice the percentage of alcohol by volume. Thus, an 86-proof bottle of whiskey contains 43% of alcohol by volume. Most alcoholic beverages have a maximum of approximately 50% alcohol by volume; the remainder consists of water and flavoring agents (congeners). For example, beer has a relatively low alcoholic content and is approximately 90% water.

B. Physiology of Alcohol

The course of alcohol in the human body is described below in terms of absorption, distribution and elimination.

1. Absorption

Alcohol is typically swallowed and travels from the mouth through the esophagus to the stomach. Here part of the alcohol is absorbed directly into the blood stream by the process of diffusion; the remainder is absorbed in the small intestine. The rate of flow from the stomach to the small intestine is controlled by the pylorus, which opens and closes at the base of the stomach to permit or inhibit the passage of solids and liquids.

a. Rate. The rate of absorption varies somewhat from person to person and for the same person at different times depending on the condition of his body. However, alcohol begins to pass into the bloodstream within 1 to 2 minutes after it is consumed, most alcohol is absorbed within 15 minutes,

nearly 90% is absorbed within 1 hour, and nearly all is absorbed in 1.5 hours. Three hours may be required for complete absorption.

b. Factors That Affect Rate of Absorption. Absorption through the stomach wall is slow and represents only a portion of total alcohol intake. Absorption through the small intestine is rapid. Therefore, anything that increases emptying time of the stomach increases absorption rate; anything that delays emptying time slows absorption rate. Both dilution of the alcoholic beverage and food in the stomach affect rate of absorption. Absorption is slow in both very dilute and very strong beverages. Food in the stomach delays absorption because stomach emptying time is delayed. This applies to eating while drinking and to eating before drinking.

2. Distribution

The alcohol travels from the stomach and small intestine via the portal vein to the liver. From the liver, it travels to the heart, the lungs, and back to the heart from which it is pumped to all parts of the body. Alcohol has an affinity for water and is stored in the body tissues in proportion to their fluid content. Organs such as the brain, liver and kidney, which have a large blood supply, initially receive a disproportionately large quantity of circulating blood. When absorption and distribution are complete, equilibrium is achieved, that is, alcohol is proportional to fluid content.

3. Elimination

Once absorbed into the blood stream, the body immediately starts to eliminate the alcohol. This is largely accomplished in the liver where the alcohol is oxidized to carbon dioxide and water. Some small portion (less than 10%) is eliminated directly through urine, breath, perspiration, tears and saliva.

a. Rate of Elimination. As soon as alcohol is absorbed into the blood system and travels to the liver, the body immediately starts to eliminate it. The average rate of elimination is reported as 0.015 to 0.018% per hour and varies between 0.01 and 0.025% per hour. At very low BAC's, the average rate of elimination is about 0.01% per hour. For a man weighing 150 pounds, the quantity eliminated in one hour is about 7g or 2/3 oz. of 100-proof whiskey. Although there is some controversy in the literature, the preponderant evidence indicates that the rate of elimination is essentially linear, that is, for any given person at a given time, the rate of alcohol elimination per hour will be essentially constant.

b. Factors Affecting Rate of Elimination. In general, the rate of elimination is not affected by stimulants, diseased states or exercise. Where changes in rates have been noted, they are too small to be of any practical value. Because of the small quantity excreted directly, any attempt aimed at eliminating alcohol through increasing breathing rate, urine or perspiration has little or no effect.

4. Factors Affecting BAC

Many factors affect the blood alcohol concentration (BAC) which results from the processes described above. Some of the major factors are described below.

a. Body Weight vs. Drinks Consumed. In general, a heavier person can consume more alcoholic beverages than a lighter one to attain the same BAC level. A chart of BAC values for different body weights and drinks consumed is shown in Table I.

The example in the table uses an average elimination rate of 0.015% as a means of accounting for the factor of "time since first drink" in estimating BAC. It should be noted again that this rate of elimination is an average rate and, therefore, should be used with caution in making such estimates.

b. Empty Stomach vs. Full Stomach. Food in the stomach will delay absorption and result in a lower BAC than would be obtained if the stomach were empty. Instead of decreasing immediately, a plateau at that BAC will be maintained for a longer period of time than if the stomach were empty. The amounts of 80-proof liquor required to reach various BAC's under conditions of both full and empty stomachs may be estimated from the charts in Figure 1.

c. Rate of Drinking and Quantity Consumed. The BAC also varies with the total quantity of alcohol consumed and the rate of drinking. In general, maximum BAC's are reached 20 to 30 minutes after consuming a single drink on an empty stomach. When drinks are consumed successively over time, the BAC rises with each drink, reaches a maximum 15 to 20 minutes following ingestion of the last drink and starts to decline from this maximum. When several drinks are consumed in a very short period of time, peak BAC's may not appear until 45 minutes to 1-1/2 hours after ingestion of the last drink.

Table I.

Percent of Alcohol in Blood

Body Weight	Number of Drinks											
	1	2	3	4	5	6	7	8	9	10	11	12
100 lb.	.038	.075	.113	.150	.188	.225	.263	.300	.338	.375	.413	.450
110 lb.	.034	.066	.103	.137	.172	.207	.241	.275	.309	.344	.379	.412
120 lb.	.031	.063	.094	.125	.156	.188	.219	.250	.281	.313	.344	.375
130 lb.	.029	.058	.087	.116	.145	.174	.203	.232	.261	.290	.320	.348
140 lb.	.027	.054	.080	.107	.134	.161	.188	.214	.241	.268	.295	.321
150 lb.	.025	.050	.075	.100	.125	.151	.176	.201	.226	.251	.276	.301
160 lb.	.023	.047	.070	.094	.117	.141	.164	.188	.211	.234	.258	.281
170 lb.	.022	.045	.066	.088	.110	.132	.155	.178	.200	.221	.244	.265
180 lb.	.021	.042	.063	.083	.104	.125	.146	.167	.188	.208	.229	.250
190 lb.	.020	.040	.059	.079	.199	.119	.138	.158	.179	.198	.217	.237
200 lb.	.019	.038	.056	.075	.094	.113	.131	.150	.169	.188	.206	.225
210 lb.	.018	.036	.053	.071	.090	.107	.125	.143	.161	.179	.197	.215
220 lb.	.017	.034	.051	.068	.085	.102	.119	.136	.153	.170	.188	.205
230 lb.	.016	.032	.049	.065	.081	.098	.115	.130	.147	.163	.180	.196
240 lb.	.016	.031	.047	.063	.078	.094	.109	.125	.141	.156	.172	.188

The table shows the estimated percent of alcohol in the blood for number of drinks consumed and different body weights. The percent can be estimated by doing the following:

1. Count your drinks (1 drink equals 1 ounce of 100-proof liquor or one 12-ounce bottle of beer).

2. Find the percent of blood alcohol listed in the table under the number of drinks and opposite body weight.

3. To estimate the percent of alcohol "burned up," decrease the figure in the table by .015 for each hour after the start of drinking.

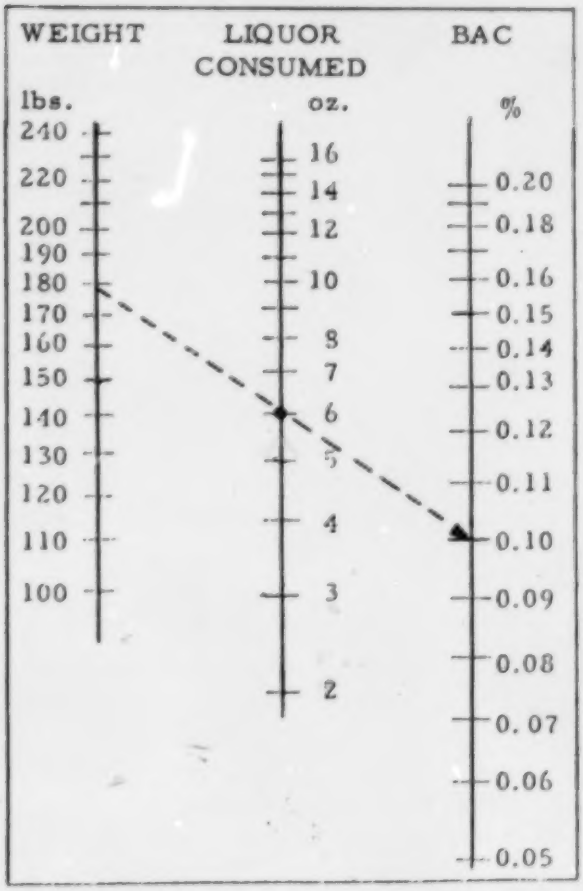
   Example: 180 lb. man consumes 8 drinks in 4 hours

   .167 (from table) minus (.015 x 4 hours) = .10%

Figure 1. Amount of 80-Proof Liquor Consumed in One Hour to Reach Given BAC's

EMPTY STOMACH

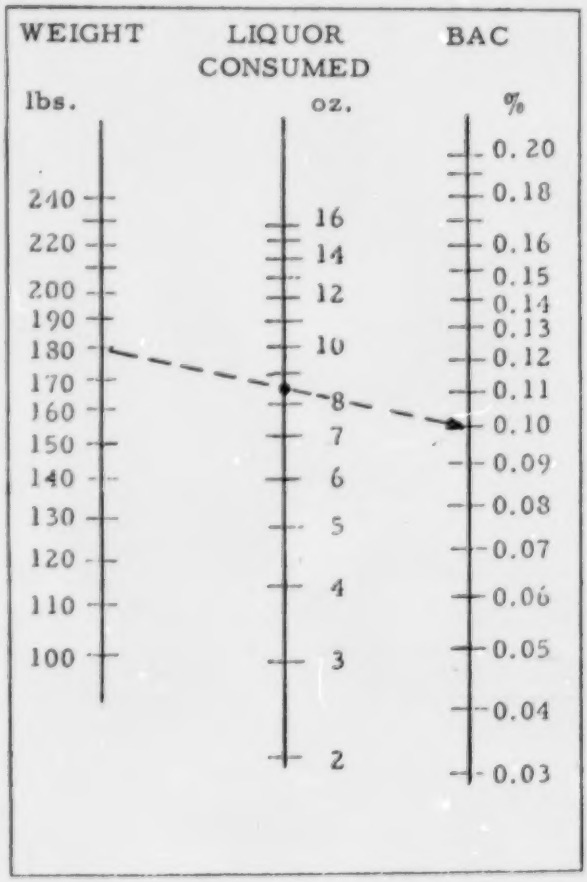
Little or no food prior to drinking



Adapted from a chart by U. S. Dept. of Health, Education and Welfare

FULL STOMACH

Between 1 and 2 hrs. after average meal



Adapted from a chart by Royal Canadian Mounted Police

To determine the amount of 80-proof liquor needed in one-hour period to reach 0.10%, draw a straight line from body weight to 0.10%. The line will intersect the number of ounces needed to produce 0.10%. Do the same to determine the amount of liquor needed to reach other BAC's. Charts show rough averages only, since many factors affect the rate of alcohol absorption into the blood stream. The rate of elimination of alcohol from the bloodstream is approximately 0.015% per hour. Therefore, subtract 0.015 from the BAC indicated on the charts for each hour after the start of drinking.

C. Pharmacology of Alcohol

1. Effects on the Central Nervous System

Alcohol is a depressant and not a stimulant. Many people think it is a stimulant since its first effect is to reduce tension and give a mild feeling of euphoria or well being. It affects the most recently developed part of the brain first--that part controlling a person's judgment and morals. Its last effect is on the oldest part of the brain--that part controlling a person's automatic body functions so that the individual completely loses control of himself, passes into a coma and ultimately dies if the respiratory center in the brain ceases functioning. In between, there is a progression of deterioration that affects a person's speech, vision and equilibrium.

a. Stages of Intoxication. The stages of alcoholic influence are shown in Table II. The BAC is stated as a range of values since not all people are affected the same at a given BAC. Further, there is no single BAC that defines a given stage. One stage merges into the next as the effects of alcohol become more severe.

b. Effects on Vision. Pupils of the eye generally dilate (enlarge) and reaction to light becomes sluggish. At BAC's of 0.10% people are unable to fuse completely the image seen by each eye into a single image. Glare is more bothersome and distance judgment is impaired. The time to adjust from far to near vision may be increased from 0.10 to 0.20 seconds at a BAC of 0.06%.

c. Effects on Reaction Time and Coordination. Alcohol causes an impairment in muscular coordination; the threshold of impairment has been demonstrated to be as low as a BAC of 0.02%. Reaction time is increased. Each person appears to have a threshold BAC at which impairment begins; then small additional doses of alcohol produce large losses in coordination. Motor tasks which require coordination or complex discrimination are impaired at BAC's of 0.05%.

2. Effects on Other Body Organs, Systems and Tissues

a. Effects on Skin. Alcohol has antiseptic properties. It absorbs heat upon evaporation and, therefore, imparts a cool and soothing feeling when rubbed on fevered skin. Following absorption, alcohol enlarges the blood vessels of the skin and permits an increase in the amount of blood circulating in the skin; this accounts for the flushed face of the drinker.

Table II.

Stages of acute alcoholic influence/intoxication[1]

ETHYL ALCOHOL LEVEL, Percent by Weight Blood (Urine)	STAGE OF ALCOHOLIC INFLUENCE	CLINICAL SIGNS/SYMPTOMS
0.01-0.05 (0.01-0.07)	Sobriety	No apparent influence Behavior nearly normal by ordinary observation Slight changes detectable by special tests
0.03-0.12 (0.04-0.16)	Euphoria	Mild euphoria, sociability, talkativeness Increased self-confidence; decreased inhibitions Diminution of attention, judgment, and control Loss of efficiency in finer performance tests
0.09-0.25 (0.12-0.34)	Excitement	Emotional instability; decreased inhibitions Loss of critical judgment Impairment of memory and comprehension Decreased sensitory response; increased reaction time Some muscular incoordination
0.18-0.30 (0.24-0.41)	Confusion	Disorientation, mental confusion; dizziness Exaggerated emotional states (fear, anger, grief, etc.) Disturbance of sensation (diplopia, etc.) and of perception of color, form, motion, dimensions Decreased pain sense Impaired balance; muscular incoordination; staggering gait, slurred speech
0.27-0.40 (0.37-0.54)	Stupor	Apathy; general inertia, approaching paralysis Markedly decreased response to stimuli Marked muscular incoordination; inability to stand or walk Vomiting; incontinence of urine and feces Impaired consciousness; sleep or stupor
0.35-0.50 (0.47-0.67)	Coma	Complete unconsciousness; coma; anesthesia Depressed or abolished reflexes Subnormal temperature Incontinence of urine and feces Embarrassment of circulation and respiration Possible death
0.45 + (0.60 +)	Death	Death from respiratory paralysis

[1]Prepared by: Kurt M. Dubowski, Ph.D., FAIC, Director, Department of Clinical Chemistry and Toxicology, University of Oklahoma, School of Medicine, Oklahoma City, Oklahoma; Member, Committee on Alcohol and Drugs, National Safety Council.

b. Effects on Circulation. Low BAC's have very little effect on circulation except to enlarge blood vessels of the skin as discussed above. There is no evidence that alcohol improves circulation; on the contrary, it appears to impair circulation. At a BAC of 0.45% or greater, death may result from respiratory or cardiac arrest.

c. Effects on Kidney. Aside from the fact that alcohol is a mild diuretic (that is, it increases urine output), moderate use of alcohol does not appear to cause any kidney damage.

d. Effects on Liver. Alcohol causes an accumulation of fat in the liver, a condition referred to as fatty liver. It may result in an inflammation of the liver, commonly called cirrhosis. However, cirrhosis appears to be more a result of the poor diet of the alcoholic rather than a direct result of alcohol. Moderate use of alcohol does not appear to have a harmful effect on the liver of healthy, well nourished people.

e. Symptoms of Alcohol Influence. Common symptoms of alcoholic influence are:

- Odor of alcoholic beverages on the breath
- Swaying or unsteadiness-staggering
- Poor muscular coordination
- Confusion
- Sleepiness
- Disorderly appearance
- Speech impairment, such as slurred, confused, thick tongue
- Dizziness
- Nausea
- Unusual actions, such as very talkative
- Visual disorders--fixed stare-glassy eyes
- Flushed skin

This list is not all-inclusive nor does any one symptom or combination of symptoms mean that the person is intoxicated. Numerous illnesses/injuries can produce the same symptoms as alcoholic influence. It might be pointed out that a chemical test can protect both law enforcement groups and the public by providing an alert to the need for medical attention. An unusually low BAC can serve to indicate that the suspect's abnormal behavior is due to some illness or injury other than alcohol. An unusually high BAC also indicates the need for medical attention in order that the danger of respiratory or cardiac arrest can be avoided.

f. Alcohol Combined with Other Drugs. Alcohol combined with other drugs can cause special problems. As stated above, medical care should be obtained for any individual who has a low BAC but appears to be markedly under the influence. The effects of alcohol combined with stimulants and other depressants are discussed below.

- Stimulants (caffeine, amphetamine, tec.). Stimulants do not counteract the depressing effect of alcohol. They are only temporarily effective with regard to the grosser aspects of drunkenness. They may be used to temporary arousal in severe intoxication, but the arousal effect is brief.

- Depressants (analgesics, antihistamines, tranquilizers, etc.). The depressant effect of alcohol and other drugs will be added together and, in some instances, the resultant effect will be greater than the expected combined effect of the two drugs. Since such depressants are used widely and indiscriminately by the public, their use with alcohol could cause a serious problem for the driver.

- Narcotics (opium, morphine, cocaine, marihuana, LSD, heroin, etc.). Animal studies have indicated additive and supra-additive effects of narcotics and alcohol; human studies are understandably lacking. In examining the drunk driver suspect, the trainee should be alert to the possibility that the individual's behavior may be due to a narcotic or to a combination of narcotic and alcohol.

g. Tolerance to Alcohol. It is well known that people react differently to liquor, that is, some are better able to "hold" their liquor better than others. Different individuals at the same BAC react differently. Although it may be said that the heavy drinker has learned to compensate for the effects of liquor (for example, by standing with his feet farther apart to minimize swaying), tolerance has been noted in the person with no previous exposure. Individuals with the same weight can attain different BAC's from the same amount of alcohol. It is the opinion of most investigators that tolerance is limited and occurs most frequently at BAC's of 0.10% or less.

The exact reasons for differences in tolerance to alcohol are unknown but the following reasons have been proposed:

- Delayed absorption
- Decreased penetration in the central nervous system
- Increased elimination
- Increased water content of the body
- Increased tissue tolerance
- Variation in the ability of individuals to respond to stress

Table III.

Some Pathological Conditions Having Symptoms in Common with Those of Alcohol Influence

Acetone Odor of the Breath (a fruity odor, which may be mistaken for the odor of alcoholic beverages):

Concussion of brain
Delirium tremens (form of acute insanity accompanied by trembling)
Diabetes
Food poisoning
Intestinal obstruction
Severe migraine (headache)
Starvation
Stomach cancer
Stomach ulcer
Uremia (blood poisoning due to malfunctioning of the kidneys)
Vomiting
Wasting diseases, such as cancer, malaria, syphilis, tuberculosis

Amnesia (loss of memory):

Dementia (insanity which may be general, paralytic, senile, or toxic)
Epilepsy (the epileptic usually has no memory of the convulsion which may have lead to an accident and his subsequent arrest)
Hysteria (a nervous disorder characterized by lack of control over acts and emotions)
Korsakoff's Syndrome (peculiar mental disturbance, usually the result of alcoholism. The victim talks freely and often plausibly about events that have never taken place.)
Toxemia (blood poisoning from microbic and other poisons, particularly encephalitis (inflammation of the brain)
Trauma (an injury, particularly of the brain)

Ataxia (failure of muscular coordination, a condition characterized by imperfectly coordinated movements):

Ataxia due to chemicals, drugs or gases
Ataxia due to mental shock or fright
Chorea (convulsive nervous disease, "St. Vitus dance")
Chronic Progressive Chorea (Huntington's Chorea) (characterized by muscular spasms, facial contortions, lurching gait)
Hysterical Ataxia (failure of muscular coordination due to psychoneurosis [nervous disorder affecting the mind])

Injury to nerves or muscles
Labyrinthitis (infection of the inner ear)
Peripheral Neuritis (inflammation of terminal nerves, usually the result of chonic alcoholism or diphtheria)
Pernicious Anemia (improper development of red blood cells, usually with nerve conduction impairment)
Spinal Cord Lesions:
Multiple Sclerosis (fibrous overgrowth of spinal cord)
Myasthenia Gravis (muscular weakness-head tends to fall forward)
Syringomyelia (degeneration of spinal cord caused by abnormal cavities filled with liquid in substance of the cord)
Tabes dorsalis (degeneration of the spinal cord and nerve-trunks, usually caused by syphilis)
Tumors of spinal cord
Traumatic Ataxia (failure of muscular coordination due to injury)

Coma (unnatural, heavy, deep sleep sometimes ending in death):

Cavernous Sinus Thrombosis (clotting of blood associated with infection in venous blood spaces in the skull)
Diabetes
Effect of chemicals
Effect of extremes of temperature, such as sunstroke, heat stroke, or excessive cold
Excessive, internal loss of blood
Head injuries
Embolism (usually blood clot or tumor cells lodging in brain)
Hysterical trance (abnormal sleep due to hysteria during which sensibility and consciousness may remain)
Insulin shock (due to overdose of insulin)
Post-epileptic state
Sudden nervous shock
Uremia

Delirium (mental disturbance marked by hallucinations, incoherence, illusions, etc.):

Acidosis (depletion of alkali reserve of the body resulting in increased acidity, such as in cases of diabetes)
Bites or stings of reptiles, insects, etc., such as bee, hornet, and wasp stings; jelly fish contacts; snake bites
Blood loss
Brain lesions, such as acute meningitis
Delirium associated with stopping of a drug habit
Drugs, such as aconite, marijuana, cocaine, etc.
Fever from acute infections
Hysteria
Infection from animal bites, e.g., hydrophobia or rat bite fever

Poisonous foods or allergic food reactions
Sunstroke

Drowsiness:

Acute anemia
Concussion of brain
Diabetes
Drugs
Encephalitis lethargica (sleeping sickness)
Uremia

Eye Disorders (bloodshot eyes, pupils do not contract or do not dilate, etc.):

Acute conjunctivitis (Pink eye)
Foreign body in eye
Glaucoma (disease of eye marked by increased ocular pressure)

Hay Fever and Similar Allergic Disorders

Iritis (inflammation of the colored part of the eye)

Trachoma (a contagious disease marked by granular eyelids)

Contracted Pupils (pupils of eyes decreased in size, normally by bright light):

Brain hemorrhage in Pons (connecting organ in the brain)
Farsightedness
Opium derivatives
Tabes Dorsalis (pupils occasionally large)
Uremia

Dilated Pupils (enlarged pupils of the eyes, normally caused by dim lights):

Acute Mania (insanity)
Anemia
Aneurysm (ballooning out of weakened arterial wall)
Apoplexy (sudden paralysis and coma due usually to blood escaping into brain or to clotting of blood in a blood vessel of the brain)
Asphyxia (deficiency of oxygen in the blood marked by suffocation)
Catalepsy (nervous disease marked by attacks of suspension of voluntary motion and sensibility)
Concussion of brain
Drugs, such as atropine, cocaine, epinephrine, eumydrin, homatropine, hyoscine
Dyspnea (difficult breathing)

Fright
Glaucoma
Mediastinal Tumor (tumor in the middle part of the chest)
Morphinism (during period of withdrawal of morphine from addict)
Most comatose conditions (those affected with coma), except from opium or uremia
Nausea, usually
Nearsightedness
Reflexly, from pain
Toxic Goiter (overactivity of the thyroid gland, usually resulting in swelling of the neck and causing a toxemia from the excess secretion of thyroxin)

Inequality of Pupils (difference in size of the two pupils):

Apoplexy
Artificial eye
Brain Tumor
Cerebral Abscess (collection of pus in a cavity formed in the brain)
Multiple Sclerosis
Refraction unequal in both eyes
Skull fracture
Syringomyelia
Tabes Dorsalis

Flushed Face:

Acne Rosacea (chronic inflammation of the face and nose)
Aneurysm of Ascending Aorta (ballooning out of one of great arteries of the heart)
Apoplexy (stroke)
Arteriosclerosis (hardening of the arteries)
Cerebral Concussion (injury to the main part of the brain)
Chemical or Drug Poisoning (by amyl nitrite, belladonna, carbon monoxide, hyoscyamus, nicotinic acid, or nitroglycerin)
Chlorosis (peculiar anemia causing greenish pallor of the skin but marked also by occasional flushing of the face)
Chronic Pulmonary Tuberculosis (disease of the lungs)
Diabetes
Emotions (blushing)
Epilepsy
Exophthalmic Goiter (a goiter accompanied by protruding eyeballs)
Hysteria
Indigestion often with hypochlorhydria (insufficient hydrochloric acid in the gastric juice)
Lactation (period of secretion of milk in a female)
Menopausal hot flash (condition caused in female during change of life)

Mitral Stenosis (narrowing of the left valve to the heart)
Neurasthenia (nervous prostration)
Polycythemia Vera (disease characterized by great excess of red blood cells)
Sunstroke

Shock and Collapse:

Acute Appendicitis
Acute Intestinal Obstruction
Acute Pancreatitis (inflammation of the digestive gland which may be fatal)
Acute Peritonitis (inflammation of the membrane which lines the abdominal walls)
Acute Pneumothorax (sudden, often spontaneous, rupture of lung)
Angina Pectoris (spasm of heart arteries)
Apoplexy (stroke, caused by ruptured blood vessel or blood vessel suddenly blocked by clotted blood)
Coronary Thrombosis (blood clot in heart artery)
Injury (particularly skull fracture)
Insulin Shock
Perforated gastric or duodenal ulcer
Poisoning
Psychic Trauma (emotional shock)
Ruptured Aortic Aneurysm

Speech Disorders:

Adenoids
Aphasia (impairment or loss of speech due to loss of memory commonly from apoplexy or cerebral thrombosis [blood clot in brain])
Cleft Palate
Chorea
Dysarthria (disordered articulation usually due to paralysis or incoordination of certain groups of muscles in lips, tongue, palate, etc.)
Facial Paralysis
General Paralysis
Hysteria
Infection of tongue or mouth
Jaw dislocation or fracture
Lisping
Mental Deficiency
Migraine
Multiple Sclerosis (results in slow "scanning speech")
Myasthenia Gravis (muscular weakness)

Myxedema (a disease which is the result of a thyroid deficiency, marked by dullness of mental faculties, sluggishness of movement, unsteadiness of gait, and thick speech)
Paralysis Agitans (Parkinson's disease) (shaking palsy)
Stammering
Toothlessness

Tremors (muscular twitching):

Cerebellar Tumor (tumor on portion of brain which coordinates movements)
Cerebral Tumor (tumor on the main part of the brain)
Chemical or Drug Poisoning (by absinthe, lead, manganese, mercury, narcotics, or tobacco)
Encephalitis Lethargica (sleeping sickness)
Exophthalmic Goiter
General Paresis (softening of the brain marked by insanity and paralysis)
Multiple Sclerosis
Neurosis (functional disorder of the nervous system)
Post-encephalic Parkinsonism (shaking palsy)
Senility (old age)

Vertigo (dizziness):

Anemia (deficiency in red blood corpuscles and/or iron)
Aortic Regurgitation (leakage of valve to great artery of the heart)
Arteriosclerosis of arteries of brain
Cerebellar Tumor
Cerebral Syphilis
Cerebral Tumor
Chronic Nephritis (chronic inflammation of the kidney)
Eyestrain
General Paresis
Hemorrhage (external or internal bleeding)
Injuries or infections of the brain
Intoxications (due to substances other than alcohol, such as barbiturates, belladonna, carbon monoxide, marijuana, opium, or quinine)
Labyrinthitis (infection of the inner ear)
Meniere's Disease (inflammation and congestion of the inner ear, characterized by dizziness, ringing of ears and some hearing loss)
Motion Sickness
Multiple Sclerosis
Neurosis
Paralysis of an eye muscle

• U.S. GOVERNMENT PRINTING OFFICE: 1975 — 266-513/375